

# REMEDIAL ACTION QUARTERLY MONITORING REPORT

FIRST QUARTER – 2004 (3 of 120)

# SKINNER LANDFILL SITE BUTLER COUNTY WEST CHESTER, OHIO

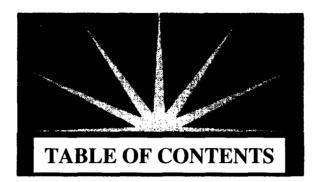
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# LIST OF ACRONYMS

AMP Air Monitoring Plan

AOC Administrative Order on Consent

ARAR Applicable or Relevant and Appropriate Requirements

BMR Baseline Monitor Report

BCDES Butler County Department of Environmental Services

bgs Below Ground Surface

BZ Breathing Zone

CD&D Construction Debris and Demolition Waste

CERCLA Comprehensive Environmental Response, Compensation and Liability

Act

CGI Combustible Gas Indicator

CHSD Corporate Health and Safety Director
CIP Construction Implementation Plan
CLP Contract Laboratory Program
cm/sec Centimeters Per Second
CO Carbon Monoxide

CP Carbon Monoxide
CP Contingency Plan

CQA Construction Quality Assurance

CQAC Construction Quality Assurance Consultant

CRZ Contamination Reduction Zone
CRQL Contract Required Quantitation Limit
CSDI Contaminated Soils Design Investigation

CY Cubic Yard CZ Control Zone

DSW Division of Surface Water (OEPA)
DSR Division Safety Representative
EPA Environmental Protection Agency

EZ Exclusion Zone

FID Flame Ionization Detector

FML Flexible Membrane Liner (low density polyethylene)

FSP Field Sampling Plan FTB Film Tearing Bond

fit Feet

ft/sec Feet Per Second

GCL Geosynthetic Clay Layer

GCAL Gulf Coast Analytical Laboratories Inc.
GIS Groundwater Interceptor System

gpd Gallons Per Day gpm Gallons Per Minute

GWDI Groundwater Design Investigation

HAP Hazardous Air Pollutant
HASP Health and Safety Plan
HDPE High-Density Polyethylene
HSM Health and Safety Manager

IDLH Immediately Dangerous to Life or Health



IRM Interim Remedial Measures

kg/d Kilograms Per Day lb/day Pounds Per Day

LEL Lower Explosion Limit

LF Lineal Feet

LLDPE Linear Low-Density Polyethylene

 $\mu$  Micron

μg/l Microgram per Liter
MSL Mean Sea Level

NIOSH National Institute for Occupational Safety and Health

NO<sub>x</sub> Oxides of Nitrogen

NWI National Wetland Inventory

 $O_3$  Ozone

OAC Ohio Administrative Code

ODNR Ohio Department of Natural Resources
OEPA Ohio Environmental Protection Agency

ORC Ohio Revised Code

OSHA Occupational Safety and Health Administration

PEL Permissible Exposure Limit
PID Photoionization Detector
PLC Programmable Logic Controller
PM-10 Particulate Matter less than 10 microns

PRP Potentially Responsible Party
PPE Personal Protective Equipment
psi Pounds Per Square Inch
PQL Practical Quantitation Limit
OAPP Quality Assurance Project Plan

QA Quality Assurance QC Quality Control

RCRA Resource Conservation and Recovery Act

RA Remedial Action
RD Remedial Design

RHSS Regional Health & Safety Specialist
RI/FS Remedial Investigation/Feasibility Study

ROD Record of Decision

RPM Remedial Project Manager (USEPA)

RPO Resident Project Observer

SI Site Inspection SF Square Feet

SLWG Skinner Landfill Work Group

SO<sub>2</sub> Sulfur Dioxide

SOP Standard Operating Procedure

SOW Statement of Work

SPCC Spill Prevention Control and Counter Measure Plan

SSO Site Safety Officer SVE Soil Vapor Extraction

SVOC Semi-Volatile Organic Compound

SZ Support Zone



TAL Target Analyte List
TCL Target Compound List
TDH Total Dynamic Head
TLV Threshold Limit Values
TSS Total Suspended Solids
TWA Time Weighted Average

USACE United States Army Corps of Engineers

USEPA United States Environmental Protection Agency

USFWS United States Fish and Wildlife Services

USGS United States Geological Survey VOC Volatile Organic Compound

yr Year

WBGT Wet Bulb Globe Temperature

WZ Work Zone



# 1.0 INTRODUCTION

# 1.1 GENERAL INFORMATION

This quarterly monitoring report was prepared for the Skinner Landfill Superfund Site located in West Chester, Butler County, Ohio in accordance with the Operation and Maintenance - Long-Term Performance Plan (O&M-LTP Plan) dated August 2003. The O&M-LTP Plan was prepared to meet the requirements of the Record of Decision (ROD) dated June 4, 1993, the Statement of Work (SOW) dated April 6, 1994, the 100% Final Remedial Design dated June 21, 1996 and the Consent Decree dated April 7, 2001.

The remedial action (RA) post-construction O&M monitoring period began with the third quarter of 2003 and extends for a period of 30 years. This report documents the results of groundwater and surface water monitoring conducted during the first quarter of 2004, which is the 3rd of 120 sampling events to be conducted during the 30-year monitoring period.

# 1.2 SITE LOCATION AND DESCRIPTION

Skinner Landfill is located approximately 15 miles north of Cincinnati, Ohio near West Chester, Butler County, Ohio in Township 3, Section 22, Range 2. The site is located along Cincinnati-Dayton Road, as shown in Figure 1. The site is bordered on the south by the East Fork of Mill Creek, on the north by wooded land, on the east by a Norfolk Southern Railway Company right-of-way, and on the west by a gravel driveway.

The site is located in a highly dissected area that slopes from a till-mantled-bedrock upland to a broad, flat-bottomed valley that is occupied by the main branch of Mill Creek. Elevations on the site range from a high of nearly 800 feet above mean sea level (MSL) in the northeast, to a low of 645 feet above MSL near the confluence of Skinner Creek and East Fork of Mill Creek. Both Skinner Creek and the East Fork of Mill Creek are small, intermittent shallow streams. Both of these streams flow to the southwest from the site toward the main branch of Mill Creek.

In general, the site is underlain by relatively thin glacial drift over inter-bedded shale and limestone of Ordovician age. The composition of the glacial drift ranges from intermixed silt, sand and gravel, to silty sandy clays with a thickness ranging from zero to over forty feet. The sand and gravel deposits comprise the hills and ridges and are encountered near the surface of the central portion of the site. The silts and clays usually occur as lenses in the sands and gravel or directly overlie bedrock.

# 1.3 SITE HISTORY AND BACKGROUND

The property was originally developed as a sand and gravel mining operation and was subsequently used as a landfill from 1934 to 1990. According to USEPA studies, materials deposited at the site include demolition debris, household refuse and a wide variety of chemical wastes. The waste disposal areas include a now buried former waste lagoon near the center of the site and a landfill. According to USEPA studies, the buried lagoon was used for the disposal of paint wastes, ink wastes, creosote, pesticides, and other chemical wastes. The landfill area, located north and northeast of the buried lagoon, received predominantly demolition and landscaping debris.

In 1976, the Ohio EPA (OEPA) initiated an investigation of the site. In 1982, the site was placed on the National Priority List by the USEPA based on information obtained during a limited investigation of the



site. A Phase II Remedial Investigation was conducted from 1989 to 1991 and involved further investigation of groundwater, surface water, soils and sediments. Both a Baseline Risk Assessment and Feasibility Study (FS) were completed in 1992.

The Phase II Remedial Investigation revealed that the most contaminated media at the site is the soil in the buried waste lagoon. Migration of the landfill constituents has been limited, and the Phase II Remedial Investigation concluded that there had been no off-site migration of landfill constituents via groundwater flow.

In the Record of Decision (ROD), dated June 4, 1993, the USEPA selected a remedy for the site consisting of multi-media capping of the landfill and the buried waste lagoon, and collection and treatment of the groundwater. The ROD also required an investigation to determine the feasibility for soil vapor extraction (SVE) in the granular soil adjacent to the buried lagoon.

The Remedial Design (RD) Investigation performed in 1994 was implemented to collect data required to assess the feasibility of the SVE and to design the multi-media cap and the groundwater extraction/treatment systems. The Remedial Design was submitted to USEPA on June 21, 1996 outlining the cover design and groundwater interception system design. Based on the RD investigation, the installation of an SVE system was determined to be unfeasible.

Construction of a groundwater interception system (GIS) and engineered landfill cover system began in April 2001 and was substantially completed in September 2001. The USEPA conducted the pre-final construction inspection on September 27, 2001, the final construction inspection on March 27, 2003 and the second 5-Year Review on January 22, 2004.

# 2.0 <u>SAMPLING METHODS</u>

This quarterly monitoring event was conducted in general accordance with the following documents shown with the date of the USEPA-approved final version:

- Operation and Maintenance Long-Term Performance Plan (O&M-LTP Plan) dated August 2003, and
- RA Health and Safety Plan, Final February 2001.

There were no deviations from these work plans.

# 3.0 RESULTS

# 3.1 GROUNDWATER LEVELS

The groundwater elevation data obtained from the monitor wells, piezometers and selected gas probes is presented on Table 1 with the corresponding potentiometric surface map provided in Appendix A. The groundwater flow direction and gradient remained relatively unchanged when compared to the previous quarterly monitoring report period. Groundwater flow direction is to the south-southeast directly toward the East Fork of Mill Creek with an average hydraulic gradient of 0.12 ft/ft. The groundwater gradient has remained relatively unchanged when compared to the average hydraulic gradient of 0.13 ft/ft documented in the Remedial Action Baseline Monitoring Report dated March 2005.



# 3.2 GROUNDWATER-WASTE MONITORING

Results of the piezometer groundwater levels used to monitor the groundwater levels relative to bottom of waste are provided on Table 2. Based on measured water levels, groundwater has been lowered below the waste elevation during this monitor event at piezometers P-11 and P-12, which are the two piezometers furthest from Duck Pond. The groundwater level remains above the bottom of waste at piezometers P-9 and P-10. The depth to water measurements for piezometers P-9, P-10 and P-11 were obtained with a smaller diameter water level indicator, as opposed to a groundwater interface probe, due to a pinching of the well casings that reduced the diameter of the piezometers.

# 3.3 GROUNDWATER ANALYTICAL RESULTS

A summary of target compound list (TCL) and target analyte list (TAL) parameter concentrations encountered above the contract required detection limit and revised modified trigger level is provided on Table 3. A summary of the laboratory analytical results have been presented on a per well basis in Appendix B to assist in identifying temporal detection patterns. A report of each data set reduction, validation and assessment procedure conducted on an analytical-set basis in accordance with the O&M-LTP Plan quality assurance project plan (QAPP) is included in Appendix C.

In general, target compound list volatiles, semi-volatiles, pesticides and PCBs were not detected in groundwater above the CRQL.

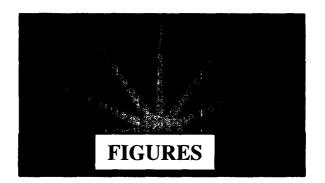
Two of the sixteen TAL parameters, with a revised modified trigger level, were detected above the CRQL. Detections of iron (present in two groundwater monitoring wells) and barium (present in one groundwater monitoring well) were detected above the CRQL, but below the revised modified trigger levels.

# 3.4 SURFACE WATER ANALYTICAL RESULTS

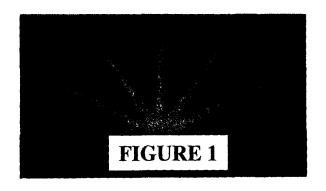
Surface water analyzed consisted of sampling surface runoff from the site and surface water directly from the East Fork of Mill Creek. A summary of TCL and TAL parameter concentrations encountered above the contract required detection limit and revised modified trigger level is provided on Table 4. A summary of surface water laboratory analytical results is presented in Appendix B. The summary tables are presented on a sample location basis. The validated laboratory analytical data is provided in Appendix C.

In general, target compound list volatiles, semi-volatiles, pesticides and PCBs were not detected in surface water above the CRQL. None of the sixteen TAL parameters, with a revised modified trigger level, were detected above the CRQL.



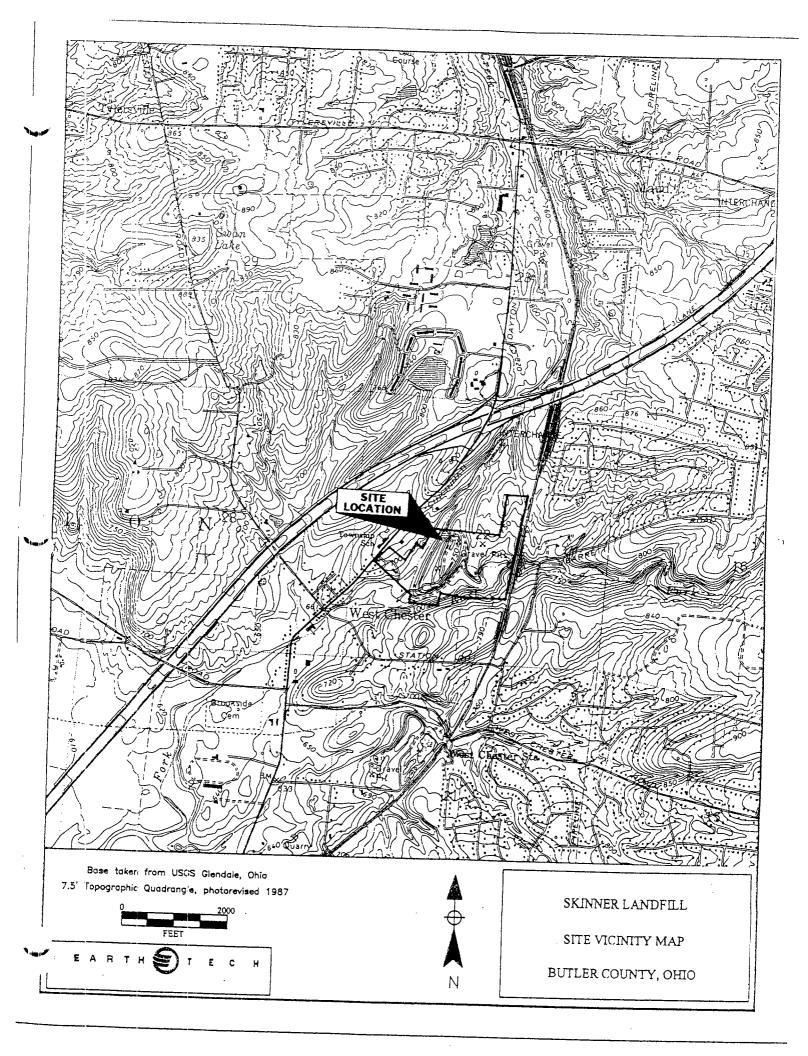


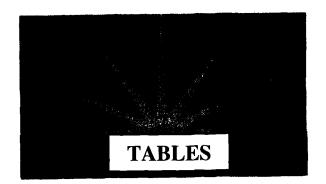




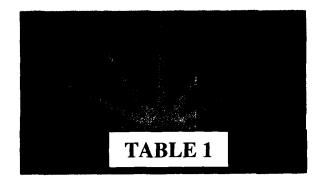
# SITE VICINITY MAP











# GROUNDWATER ELEVATIONS



TABLE 1
Groundwater Elevation Summary

# Skinner Landfill West Chester, Ohio

					March 2004			
Well Type	Location	Well Use	Ground Surface Elevation (MSL-feet)	Top of Casing Elevation (MSL-feet)	Depth to Water (feet from top of casing)	Groundwater Elevation (MSL-feet)		
	P-1	G	685.42	687.65	9.75	677.90		
	P-2	G	688.54	690.42	13.21	677.21		
	P-3R	G	691.83	693.69	25.43	668.26		
	P-4	G	700.32	702.63	6.68	695.95		
	P-5	G	708.20	710.65	14.33	696.32		
Piezometers	P-6	G	707.45	710.59	12.45	698.14		
Piezometers	P-7	G	719.08	721.83	Dry	Dry		
	P-8	G	747.70	749.91	29.73	720.18		
	P.9	G	760.68	763.90	20.75	743.15		
	P-10	G	761.34	764.16	26.10	738.06		
	P-11	G	760.34	762.76	27.40	735.36		
	P-12	G	743.50	746.17	40.65	705.52		
	GW-06R	S	683.89	685.91	9.94	675.97		
	GW-07R	s	683.46	683.06	4.31	678.75		
	GW-24	G	693.32	695.21	17.65	677.56		
	GW-26	G	696.61	698.28	29.82	668.46		
	GW-30	G	675.63	677.62	10.18	667.44		
	GW-58	s	684.03	686.53	14.13	672.40		
Groundwater	GW-59	s	684.35	687.38	6.97	680.41		
Monitoring Wells	GW-60	s	689.12	692.38	13.08	679.30		
violitoring wons	GW-61	s	687.38	690.86	12.88	677.98		
	GW-62A	s	690.19	692.38	29.81	662.57		
1	GW-62B	s	690.57	693.13	12.48	680.65		
	GV/-63	s	698.87	702.50	10.23	692.27		
	GW/-64	s	700.45	703.88	13.17	690.71		
	GW-65	s	703.83	706.88	13.64	693.24		
	GV/-66	G	686.82	689.41	8.67	680.74		
Gas Probes	GP-6	G	772.18	774.65	14.91	759.74		
Gas Flowes	GP-7	G	749.83	752.65	8.62	744.03		

# Notes:

MSL - Mean Sea Level

- ${\sf G-Gauging}$
- 5 Sampling and Gauging
- No Gauging Data Available (well constricted)



# GROUNDWATER/WASTE ELEVATIONS



# TABLE 2

# **Groundwater-Waste Monitoring Summary**

Skinner Landfill West Chester, Ohio

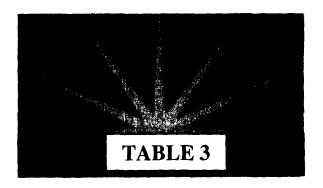
Piezometer	Depth to Waste (feet)	Bottom of Waste Elevation (MSL-feet)	Baseline Water Elevation (June 2001) (feet)	Water Elevation (May 2003) (feet)	Water Elevation (August 2003) (feet)	Water Elevation (November 2003) (feet)	Water Elevation (March 2004) (feet)
P-9	25	737	745.00	744.75	-	-	743.15
P-10	30	734	744.50	744.71	738.46	739.16	738.06
P-11	17	745	744.30	734.82	735.74	734.83	735.36
P-12	35	707	713.50	705.83	705.42	705.39	705.52

# Notes:

Waste elevations determined during piezometer installation on June 28 and 29, 2001. Shaded cells indicate water level elevations below the elevation of waste.

- No Gauging Data Available (well constricted)





# GROUNDWATER RESULTS SUMMARY



Table 3

# **Groundwater Summary**

# Skinner Landfill West Chester, Ohio First Quarter 2004

Sample ID	VOCs S		Dissolved Metals**	Pesticides/PCBs
GW-06R	<u> </u>	-	barium	<del></del>
GW-07R	-	-	<u> </u>	<u> </u>
GW-58		-	iron	<u>-</u>
GW-59		-		<u>-</u>
GW-60	-	<b>-</b>		<u>-</u>
GW 61	<u> </u>	-	iron	<u>-</u>
GW-62A		-	<u> </u>	-
GW-62B	*	*	*	*
GW-63	-	-	<u>-</u>	-
GW -64	-	-	-	-
GW-65	-	*	*	*

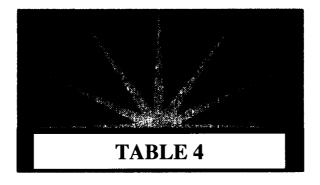
<sup>-</sup> all parameters below report limits

italic - above Contract Required Quantitation Levels (CRQL's)

# bold - above trigger level

- \* Insufficient sample volume.
- \*\* Dissolved metals for analytes that have a corresponding trigger level.





# SURFACE WATER RESULTS SUMMARY



# Table 4

# **Surface Water Summary**

# Skinner Landfill West Chester, Ohio First Quarter 2004

Sample ID	VOCs	SVOCs	Dissolved Metals**	Pesticides/PCBs
SW-50		-	-	•
SW-51	-	-	-	
SW-52	-	- 1	-	-
SWD-1	<b>\$</b> .	*	*	*
SWD-2	*	*	*	*
SWD-3	-	-	-	-

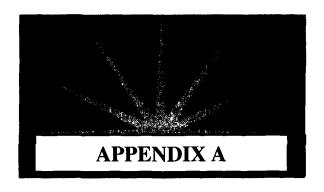
- all parameters below report limits

italic - above Contract Required Quantitation Levels (CRQL's)

# bold - above trigger level

- \* Insufficient sample volume.
- \*\* Dissolved metals for analytes that have a corresponding trigger level.





# POTENTIONMETRIC SURFACE MAP



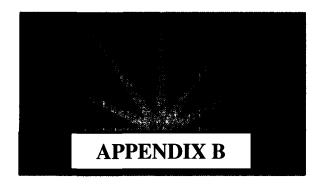
# **SDMS US EPA Region V**

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# SUMMARY OF ANALYTICAL RESULTS



	Sampling Event (All Results Expressed in Units of μg/l)								
		Baseline	Results			Quarterly Results	5		
Compound	September-02	December-02	February-03	May-03	August-03	November-03	March-04	TRIGGER LEVEL	CRQL
norganics - Metals (Dissolved) <sup>13</sup>									
luminum		~	_	_	_	25.8	25.8		200
Antimony	13.3 B	6.0 B	3.0	7.0	3.7	3.7	3.7	60	60
Arsenic	8.1 B	3.6 U	3.6	2.9	2.9	2.9	2.9	20	10
Barium	266	254	256	224	309 J	294	266	1,000	200
Beryllium	0.1 U	0.1 U	0.1	0.1	0.1	0.1	0.1	5	5
Cadmium	0.2 U	0.2 U	0.2 UJ	0.2	0.2	0.2	0.2	5	5
Calcium	_	_	_	_	_	189,000	189,000		5,000
Chromium	1.1 B	3.5 B	2.1	2.6	2.6	0.8	1.2	11	10
Cobalt		~				0.4	0.4		50
Copper	1.0 U	1.0 U	1.0 UJ	1.9	1.3	1.7	1.2	25	25
ron	92.2 B	4.9 U	79.2	14.1	14.1	14.1	22.0	7,000	100
ead	1.3 U	1.3 UJ	1.3 R	1.5 UJ	1.5	1.5	1.5	4.2	3
	1.5 U	1.5 03	1.5 K	1.5 01	1.5	30,500	30,000	7.6	5,000
Magnesium						77.0	69.5 J		15
Manganese								0.2	0,2
Mercury	0.1 U	0.1 U	0.1 UJ	0.1	0.1	0.1	0.1	0.2	
Nickel	3.6 B	1.6 B	1.8	1.8	1.7	1.8	1.7	96	<u>40</u>
Potassium		-				2,400	2,060	0.5	5,000
Selenium	8.5 J	4.0 U	4.0 R	4.4	4.4	4.4 R	4.4 UJ	8.5	5
Silver	1.9 B	5.5 B	0.5	0.4	0.4	0.4	0.4	10	10
Sodium		_	_			21,500	20,700		5,000
Thallium	3.7 B	3.6 UJ	3.6	2.6 UJ	2.6	2.6 UJ	2.6	40	10
/anadium		_				0.8	1.6		50
Zinc	0.8 U	10.7 B	0.8 UJ	1.5	13.5	0.6 UJ	0.6 UJ	86	20
Inorganics - Metals and Cyanide									
(Total)			· ·						
Aluminum						17,000	9,900		.,000,000,000,000
Antimony		28.7 B	3.0	6.9	3.7	3.7	5.5		
*rsenic		73.2	38.8	2.9	13.2	20.5	12.4	1	
ım	, <del>-</del>	1,120	852	336	493	568	440		
yllium		3.3 B	2.5	0.1	0.3	1.2	1.1		
Cadmium	_	2.0 B	0.2 UJ	0.2	0.2	0.2	1.0		
Calcium						378,000	309,000		
Chromium	_	82.3	64.2	12.3	21.4 J	27.0	16.9		
Cobalt		_	_		_	24.1	12.3		
Copper	_	138	108 J	16.7	32.1	52.1	39.3		
Cyanide	4.0 U	4.0 UJ	4.0	3.0	3.0	3.0	1.0	10	10
ron	_	123,000	94,100	13,100	27,200 J	45,400	25,300		
ead	_	95.4 J	100 J	9.6 J	26.0 J	46.0	23.9		
Magnesium	_	_	_	_	_	115,000	83,600		
Manganese			_		_	2,940	988		
Mercury		0.2	0.2 Ј	0.1	0.1	0.1	0.1		
lickel		114	88.2	14.1	26.0	41.2	23.4		
Potassium	_	-	-	_	_	5,050	3,970		
Selenium	_	65.7	4.0 R	4.4	4.4 R	4.4 UJ	4.4 UJ		
Silver		10.6	0.5	0.4	0.4	0.4	0.4		
Sodium						22,100	21,900		
hallium		3.6 UJ	4.9 J	2.6 UJ	2.6 UJ	2.6	2.6		
Vanadium	_		_			41.5	22.2		
Zinc		379	279 J	61.5	87.8 J	147 J	72.9	<del>                                     </del>	
Volatile Organic Compounds (VOCs)	BRL	BRL	BRL	BRL	BRL	BRL	BRL		
Semi-Volatile Organic Compounds SVOCs)	BRL	BRL	BRL	BRL	BRL	BRL	BRL		
Bis (2-ethlyhexyl) phthalate	12.0 U	10.0 U	906	10.0 U	10.0 U	10.0 U	10.0 U	49	10
Pesticides / PCBs	BRL	BRL	BRL	BRL	BRL	BRL	BRL		

# Notes

- 1) All results expressed in micrograms per liter ( $\mu g/L$ ).
- Standard Inorganic Data Qualifiers have been used.
   Yellow shading indicate a detection above the Contract Required Quantitation Limit (CRQL)
- 4) Bold red letters with a thick outline indicates a detection above the Trigger Level.
- 5) BRL = Below Report Limit; reported data values have a data qualifier of U. J, or UJ
- 6) = Constituent not analyzed.
- 7) U = Not detected at the listed reporting limit.
- 8) B = An estimated value above the method detection limit (MDL) or the instrument detection limit (IDL) but below the CRQL.
- 9) UJ = A value less than the CRQL but greater than the MDL.
- )) J = The analyte was positively identified; the associated numerical value is the approximate concentration of analyte in the sample.
- 11) R = The sample results are rejected due to deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte can not be verified.
- 12) CRQL = Contract Required Quantitation Limit
- 13) Samples analyzed for Dissolved Inorganics were field filtered using a 0.45 micron, gravity flow filter.
- 14) Detailed summary tables which list report limits and qualified data values for each compound analyzed for by the laboratory as well as qualified laboratory reports are available upon request.



	Sampling Event (All Results Expressed in Units of μg/l)								
		Baseline	Results			Quarterly Results	3		
Compound	September-02	December-02	February-03	May-03	August-03	November-03	March-04	TRIGGER LEVEL	CRQL
Inorganics - Metals (Dissolved) <sup>13</sup>									
Aluminum	_	_	_	_	_	25.8	25.8		200
Antimony	5.6 B	12.4 B	3.3	3.7	3.7	3.7	3.7	60	60
Arsenic	10.6	7.7 B	3.6	2.9	2.9	4.5	2.9	20	10
Barium	100 B	123 B	99.9	98.8	152 J	131	113	1,000	200
Beryllium	0.1 U	0.1 U	0.1	0.1	0.1	0.1	0.1	5	5
Cadmium	0.2 U	0.2 U	0.2 UJ	0.2	0.2	0.2	0.2	5	5
Calcium			_			229,000	185,000		5,000
Chromium	0.7 U	2.9 B	2.7	2.0	2.9	0.8	1.1	11	10
Cobalt	_	_			_	1.4	0.7	10.00	50
Copper	1.0 U	1.0 U	1.0 UJ	1.2	1.2	1.2	1.2	25	25
Iron	1,760	1,250	241	146	301 J	3,580	32.9	7,000	100
Lead	1.3 U	1.3 UJ	1.3 R	1.5 J	1.5	1.5	1.5	4.2	3
Magnesium	_			_		33,000	26,300		5,000
Manganese			_		_	849	914 J		15
Mercury	0.1 U	0.1 U	0.1 UJ	0.1	0.1	0.1	0.1	0.2	0.2
Nickel	3.1 B	1.9 B	3.4	3.2	2.4	1.6	2.2	96	40
Potassium	_		_	_	_	3,260	2,350		5,000
Selenium	11.3 J	4.0 U	4.0 R	4.4	4.4	4.4 R	4.4 UJ	8.5	5
Silver	0.9 B	4.7 B	0.5	0.4	0.4	0.4	0.4	10	10
Sodium	-		_		_	42,200	25,200	10	5,000
Thallium	10.5	3.6 UJ	3.6	2.6 J	2.6	2.6 UJ	2.6	40	10
Vanadium	10 1 D			-	-	0.8	0.8	97	50
Zinc Inorganics - Metals and Cyanide	10.1 B	11.3 B	0.8 UJ	10.2	10.9	30.7 J	0.6 UJ	86	20
(Total)									
Aluminum			_			3,130 J	7,810		
Antimony	_	14.2 B	3.0	3.7	3.7	3.7	6.6 J		
nic	_	9.8 B	3.6	2.9	14.6	5.3	6.9		
um	_	454	260.0	132	699	204	484		
Beryllium	_	0.2 B	0.1	0.1	0.3	0.1	0.8		
Cadmium		0.2 U	0.2 UJ	0.2	0.2	0.2	0.9		
Calcium	_		_	_	_	246,000	281,000		
Chromium	_	19.3	9.1	3.7	21.5 J	4.9	12.9		
Cobalt	_	_	_	_	_	4.3	7.0		
Copper	_	21.8 B	8.2 J	4.2	30.4	10.0	35.5		
Cyanide	4.0 U	4.0 U	4.0	3.0	3.0	3.0	1.5	10.0	10.0
Iron	_	24,800	10,200	2,380	29,000 J	9,890	20,200	The Principal of	
Lead	_	9.1 J	1.3 R	1.5 UJ	16.8 J	5.2	9.2		
Magnesium	_			_		41,600	54,000		
Manganese	_		_		_	969	1,590		
Mercury	_	0.1 U	0.1 UJ	0.1	0.1	0.1	0.1		
Nickel	_	21.3 B	10.4	4.7	25.3	10.5	17.8		
Potassium		40.11			440	3,780	4,510		
Selenium Silver		4.0 U 5.2 B	4.0 R 0.5	4.4	4.4 R	4.4 UJ 0.4	4.4 UJ	-	
Sodium		3.2 B	0.3	0.4	0.4	41,200	0.4 31,200		
Γhallium		3.6 UJ	3.6 UJ	2.6 UJ	2.6 UJ	2.6	2.6		
Vanadium	_	J.0 03	3.0 03	2.0 03	2.0 03	6.5	15.3 J		
Zinc	_	63.1	27.6 J	50.7	90.3 J	22.7 Ј	51.2		
Volatile Organic Compounds (VOCs)	BRL	BRL	BRL	BRL	BRL	BRL	BRL		
Semi-Volatile Organic Compounds (SVOCs)	BRL	BRL	BRL	BRL	BRL	BRL	BRL		
Pesticides / PCBs	BRL	BRL	BRL	BRL	BRL	BRL	BRL		

## Notes:

- 1) All results expressed in micrograms per liter (µg/L).
- 2) Standard Inorganic Data Qualifiers have been used.
- 3) Yellow shading indicate a detection above the Contract Required Quantitation Limit (CRQL)
- 4) Bold red letters with a thick outline indicates a detection above the Trigger Level.
- 5) BRL = Below Report Limit; reported data values have a data qualifier of U. J, or UJ
- 6) = Constituent not analyzed.
- 7) U = Not detected at the listed reporting limit.
- 8) B = An estimated value above the method detection limit (MDL) or the instrument detection limit (IDL) but below the CRQL.
- ) UJ = A value less than the CRQL but greater than the MDL.
- )) J = The analyte was positively identified; the associated numerical value is the approximate concentration of analyte in the sample.
- 1) R = The sample results are rejected due to deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte can not be verified.
- 12) CRQL = Contract Required Quantitation Limit
- 13) Samples analyzed for Dissolved Inorganics were field filtered using a 0.45 micron, gravity flow filter.
- 14) Detailed summary tables which list report limits and qualified data values for each compound analyzed for by the laboratory as well as qualified laboratory reports are available upon request.



_		Baseline	Results			Quarterly Result	s		
Compound	September-02	December-02	February-03	May-03	August-03	November-03	March-04	TRIGGER LEVEL	CRQL
Inorganics - Metals (Dissolved) <sup>13</sup>									
Aluminum	_				_	25.8	25.8		200
Antimony	5.5 B	9.7 B	3.0	4.9	3.7	3.7	3.7	60	60
Arsenic	8.2 B	3.6 U	3.6	2.9	3,1	6.0	3.1	20	10
Barium	170 B	50.9 B	163	158	162 J	228	156	1,000	200
Beryllium	0.1 U	0.1 U	0.1	0.1	0.1	0.1	0.1	5	5
Cadmium	0.2 U	0.2 U	0.2 UJ	0.2	0.2	0.2	0.2	5	5
Calcium	_					96,400	109,000		5,000
Chromium	0.7 U	2.9 B	2.7	2.8	2.5	0.8	1.5	11	10
Cobalt	_	_	_	_	_	0.4	1.3		50
Copper	1.0 U	1.0 U	1.0 UJ	1.2	1.2	1.2	2.9	25	25
Iron	3,440	4.9 U	249	1,140	488 J	2,890	209	7,000	100
Lead	1.3 U	1.3 U	1.3 R	1.5 UJ	1.5	1.5	1.5	4.2	3
Magnesium	_	_	_	_	_	32,800	32,500		5,000
Manganese	_	_	_			354	549		15
Mercury	0.1 U	0.1 U	0.1 UJ	0.1	0.1	0.1	0.1	0.2	0.2
Nickel	2.6 B	1.7 B	2.2	2.4	1.2	1.3	2.6	96	40
Potassium	_	_	_	_	_	5,210	4,550		5,000
Selenium	4.0 UJ	4.0 UJ	4.0 R	4.4	4.4	4.4 R	4.4 UJ	8.5	5
Silver	0.5 U	4.1 B	0.5	0.4	0.4	0.4	0.4	10	10
Sodium	_	_	_	_	_	34,400	32,400		5,000
Thallium	6.3 B	3.6 U	3.6	2.6 UJ	2.6	2.6 UJ	2.6	40	10
Vanadium	_	_	_	_	_	0.8	1.6		50
Zinc	1.6 B	11.0 B	0.8 UJ	19.2	7.7	0.6 UJ	0.6	86	20
Inorganics - Metals and Cyanide									
(Total)									
Aluminum	_	_	_	_	_	41,600	12,000		
Antimony	_	14.3 B	3.0	5.2	3.7	3.7	5.7		
Arsenic	_	17.5	17.1	3.2	20.6	32.9	11.5 J		
rium	_	422	540	367.0	391	822	284		
eryllium	_	1.0 B	1.3	0.3	0.7	2.9	1		
Cadmium	_	0.2 U	0.2 UJ	0.2	0.2	1.8	1.5		
Calcium	_					745,000	214,000		
Chromium	_	51.3	63.1	14.9	42.6 J	112	28.2		
Cobalt	_	_	_	_	_	57.2	13.4		
Copper	_	47.7	42.5 J	27.8	43.2	138	45.7		
Cyanide	4.0 U	4.0	4.0	3.0	3.0	3.0	0.5	10	10
Iron	_	54,500	61,900	17,000	40,800 J	129,000	32,700		
Lead	_	19.8 J	38.5 UJ	23.0 Ј	26.8 J	92.7	19.5		
Magnesium	_				_	148,000	56,000		
Manganese	_					4,200	1,300		
Mercury	_	0.1 U	0.1 UJ	0.1	0.1	0.1	0.1		
Nickel	_	56.2	66.5	20.1	50.6	124	32.1		
Potassium	_		_			11,800	7,640		
Selenium		4.0 U	4.0 R	4.4	4.4 R	4.4 UJ	4.4 UJ		
Silver		5.9 B	0.5	0.4	0.4	1.6	0.4		
Sodium Thallium		26 111	26 111	26 111	26111	36,900	33,500		
Vanadium		3.6 UJ	3.6 UJ	2.6 UJ	2.6 UJ	2.6	4.1 J		
Zinc		153	164 J	78.7	137 J	74.0 367 J	23.2 81.0 J		-
Volatile Organic Compounds (VOCs)	BRL	BRL	BRL	BRL	BRL	BRL	BRL		
Semi-Volatile Organic Compounds (SVOCs)	BRL	BRL	BRL	BRL	BRL	BRL	BRL		
Pesticides / PCBs	BRL	BRL	BRL	BRL	BRL	BRL	BRL		

## Notes:

- 1) All results expressed in micrograms per liter (µg/L).
- 2) Standard Inorganic Data Qualifiers have been used.
- 3) Yellow shading indicate a detection above the Contract Required Quantitation Limit (CRQL)
- 4) Bold red letters with a thick outline indicates a detection above the Trigger Level.
- 5) BRL = Below Report Limit; reported data values have a data qualifier of U. J, or UJ
- 6) = Constituent not analyzed.
- 7) U = Not detected at the listed reporting limit.
- 8) B = An estimated value above the method detection limit (MDL) or the instrument detection limit (IDL) but below the CRQL.
- 9) UJ = A value less than the CRQL but greater than the MDL.
- 10) J = The analyte was positively identified; the associated numerical value is the approximate concentration of analyte in the sample.
- 11) R = The sample results are rejected due to deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte can not be verified. 12) CRQL = Contract Required Quantitation Limit
- 13) Samples analyzed for <u>Dissolved</u> Inorganics were field filtered using a 0.45 micron, gravity flow filter.

  14) Detailed summary tables which list report limits and qualified data values for each compound analyzed for by the laboratory as well as qualified laboratory reports are available upon request.



		Baseline	Results			Quarterly Results	S		
Compound	September-02	December-02	February-03	May-03	August-03	November-03	March-04	TRIGGER LEVEL	CRQL
Inorganics - Metals (Dissolved) <sup>13</sup>									
Aluminum	_	_	_	_		25.8	27.2		200
Antimony	9.9 B	13.1 B	3.0	8.0	7.2	6.5	3.7	60	60
Arsenic	13.0	5.9 B	3.6	2.9	2.9	2.9	2.9	20	10
Barium	142 B	65.6 B	35.7	37.2	38.1 J	40.7	21.8	1,000	200
Beryllium	0.1 U	0.1 U	0.1	0.1	0.1	0.1	0.1	5	5
Cadmium	0.2 U	0.2 U	0.2 UJ	0.2	0.2	0.2	0.2	5	5
Calcium	_	_	_	_	_	261,000	239,000		5,000
Chromium	9.6 B	4.6 B	4.9	4.4	3.3	0.8	1.8	11	10
Cobalt	_	_	_	_	_	0.4	0.4		50
Copper	2.2 B	1.0 U	1.0 UJ	3.5	3.0	4.0	2.1	25	25
Iron	4,900	4.9 U	591	14.1	14.1	14.1	28.8	7,000	100
Lead	1.5 B	1.3 UJ	1.3 R	1.5 UJ	1.5	1.5	1.5	4.2	3
Magnesium	_	_	_	_	_	59,500	49,000		5,000
Manganese	_	_	_	_	_	27.3	4.5 J		15
Mercury	0.1 U	0.1 U	0.1 UJ	0.1	0.1	0.1	0.1	0.2	0.2
Nickel	12.3 B	1.8 B	3.5	3.5	3	2.3	2.6	96	40
Potassium	_	_	_	_	_	29,800	32,800		5,000
Selenium	15.8 J	18.2	4.0 R	4.4	4.4	4.4 R	4.4 UJ	8.5	5
Silver	2.7 B	7.2 B	0.5	0.4	0.4	0.4	0.4	10	10
Sodium		-	_			186,000	166,000	- 10	5,000
Thallium	8.8 B	3.6 UJ	3.6 UJ	2.6 UJ	2.6	2.6 UJ	3.1 J	40	10
Vanadium	0.0 D	5.0 03	- J.0 CJ	2.0 03	2.0	0.8	1.4	70	50
Zinc	7.9 B	7.2 B	0.8 J	1.2	18.4	0.6 UJ	3.1 J	86	20
Inorganics - Metals and Cyanide	7.5 B	7.2 B	0.8 3	1.2	16.4	0.0 03	3.1 3	80	20
(Total)									
Aluminum		_	_	_	_	3,710	816		
Antimony	_	19.5 B	3.0	3.7	3.7	3.7	4.7		
Arsenic	_	36.5	3.6	2.9	3.6	4.3	2.9		
Barium	_	215	202	55.2	62.1	213	55.0		
Beryllium	_	1.9 B	0.1	0.1	0.1	0.1	0.2		
Cadmium	_	0.7 B	0.2 UJ	0.2	0.2	0.2	0.2		
Calcium	_	_	_			281,000	243,000		
Chromium		82.4	18.8	5.4	8.3 J	19.1	5.5		
Cobalt	_	_	_	_	_	7.4	2.1		
Copper	_	45.0	1.0 UJ	3.6	6.0	11.9	10.1		
Cyanide	4.0 U	4.0	4.0	3.0	3.0	3.0	1.0	10	10
Iron	_	79,700	9,810	1,390	2,240 J	12,900	3,020		
Lead	_	36.7 J	1.3 R	1.5 UJ	5.7 J	10.0	1.5		
Magnesium	_	_	_	_	_	62,400	51,500		
Manganese	_	_	_			923	224		
Mercury		0.1 B	0.1 UJ	0.1	0.1	0.1	0.1		
Nickel	_	77.2	16.0	4.8	6.5	20.0	6.7		
Potassium	_	_	_	_	_	31,900	32,500		
Selenium	_	21.6	4.0 R	4.4	4.4 R	4.4 UJ	4.4 UJ		
Silver	_	7.6 B	0.5	0.4	0.4	0.4	0.4		
Sodium	_	_	_	_	_	180,000	162,000		
Thallium	_	3.6 UJ	3.6 UJ	2.6 UJ	2.6 UJ	2.6	2.6		
Vanadium	_		- 100	-		5.9	2.3		
Zinc		238	18.9 J	16.3	21.2 J	36.3 J	7.9 J		
Volatile Organic Compounds (VOCs)	BRL	BRL	BRL	BRL	BRL	BRL	BRL		
1,1-Dichloroethane				0.2 J	1.0 U	1.0 U	1.0 U		10
Semi-Volatile Organic Compounds (SVOCs)	BRL	BRL	BRL	BRL	BRL	BRL	BRL		
Pesticides / PCBs	BRL	BRL	BRL	BRL	BRL	BRL	BRL		

- 1) All results expressed in micrograms per liter (µg/L).
  2) Standard Inorganic Data Qualifiers have been used.
  3) Yellow shading indicate a detection above the Contract Required Quantitation Limit (CRQL)
- 4) Bold red letters with a thick outline indicates a detection above the Trigger Level.
- 5) BRL = Below Report Limit; reported data values have a data qualifier of U. J, or UJ
  6) ≈ Constituent not analyzed.
  7) U = Not detected at the listed reporting limit.

- 8) B = An estimated value above the method detection limit (MDL) or the instrument detection limit (IDL) but below the CRQL.

- 9) UJ = A value less than the CRQL but greater than the MDL.
  10) J = The analyte was positively identified; the associated numerical value is the approximate concentration of analyte in the sample.
  11) R = The sample results are rejected due to deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte can not be verified.
- 12) CRQL = Contract Required Quantitation Limit
- 13) Samples analyzed for <u>Dissolved</u> Inorganics were field filtered using a 0.45 micron, gravity flow filter.

  14) Detailed summary tables which list report limits and qualified data values for each compound analyzed for by the laboratory as well as qualified laboratory reports are available upon request.



		Baseline	Results			3			
Compound	September-02	December-02	February-03	May-03	August-03	November-03	March-04	TRIGGER LEVEL	CRQL
Inorganics - Metals (Dissolved) <sup>13</sup>	Insufficient Volume		Insufficient Volume		Insufficient Volume		Insufficient Volume		
Aluminum	_	_	_	_	_	25.8	25.8		200
Antimony	_	11.3 B	_	6.7	_	3.7	5.1	60	60
Arsenic	_	3.6 U	_	2.9	_	2.9	2.9	20	10
Barium	_	43 B	_	60.9	_	28.7	27.1	1,000	200
Beryllium	_	0.1 U	_	0.1	_	0.1	0.2	5	5
Cadmium	_	0.2 U	_	0.2	_	0.2	0.2	5	5
Calcium		_	_	_	_	100,000	309,000		5,000
Chromium		4.6 B		2.7		0.8	2.6	11	10
Management of the control of the con		4.0 B		2.1		0.4	0.4	- 11	50
Cobalt		and the second business control of the second secon					700101	25	
Copper	_	1.0 U		3.0	_	4.2	4.0	25	25
Iron	_	1.3 UJ	_	14.1	_	14.1	14.1	7,000	100
Lead	_	0.1 U		1.5 UJ	_	1.5	1.5	4.2	3
Magnesium	_	_			_	20,100	88,200		5,000
Manganese						2.4	0.5 J		15
Mercury	_	3.4 B	_	0.1	_	0.1	0.1	0.2	0.2
Nickel	_	13.3	_	1.1	_	0.7	2.4	96	40
Potassium	_	_	_	_	_	6,970	6,480		5,000
Selenium	_	5.8 B	_	4.4	_	4.4 R	4.4 UJ	8.5	5
Silver	_	3.6 UJ	_	0.4	_	0.4	0.4	10	10
Sodium	_	_	_	_	_	201,000	46,000		5,000
Thallium	_	10.4 B	_	2.6 UJ	_	2.6 UJ	2.6	40	10
Vanadium	_	_	_	_	_	0.8	0.8	THE RESERVE TO STATE OF	50
Zinc	_	10.4 B	_	4.5	_	0.6 UJ	0.6 UJ	86	20
Inorganics - Metals and Cyanide									
(Total)									
Aluminum	_	_			_	13,400 J	32,500		
Antimony	_	8.4 B	_	3.7	_	3.7	9.7		
Armic	_	5.7 B	_	2.9	_	11.7	17.0 J		
	_	88.5 B		73.1	_	89.8	129		
L am	_	0.1 U	_	0.1	_	0.9	2.5		
Cadmium	_	0.2 U	_	0.2	_	0.2	2.8		
Calcium	_	_		_	_	158,000	492,000		
Chromium		7.3 B		10.9	<del>                                     </del>	33.2	59.6		
Cobalt	_	7.5 D	_	10.5		16.6	36.1		
Copper	_	1.0 U	_	7.5	_	29.3	54.5		
Cyanide	_	4.0 U	_	3.0		3.0	J4.J	10	10
Iron	_	2,780		7830		31,300	74,200	10	10
Lead		1.3 UJ		1.5 UJ		28.2	40.4		
Magnesium		1.5 03		-		32,500	112,000		
Manganese Manganese						555 555	1,410		
Mercury Nickel	<del>-</del>	0.1 U 7.4 B		0.1		0.1 31.6	0.1		
		7.4 B		7.8	-		67.3		
Potassium Selenium		14.2		-		9,290	11,800		
	_	14.3		4.4		4.4 UJ	4.4 UJ		
Silver Sodium		5.0 B		0.4		0.4	0.4		
Thallium		36 111		26 111	_	212,000	44,600		
Vanadium		3.6 UJ		2.6 UJ	_	2.6	11 J		
Zinc		28.3		34.2		23.2 135 J	51.2 180 J		
Volatile Organic Compounds (VOCs)	BRL	BRL	BRL	BRL.	BRL	BRL	BRL		
Semi-Volatile Organic Compounds (SVOCs)	_	BRL	BRL	BRL	_	BRL	BRL		
(31003)		BRL		BRL		BRL	BRL		

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- 6) = Constituent not analyzed.
- 7) U = Not detected at the listed reporting limit.
- 8) B = An estimated value above the method detection limit (MDL) or the instrument detection limit (IDL) but below the CRQL.
- 9) UJ = A value less than the CRQL but greater than the MDL.
  - T = The analyte was positively identified; the associated numerical value is the approximate concentration of analyte in the sample.
- = The sample results are rejected due to deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte can not be verified. ... CRQL = Contract Required Quantitation Limit
- 13) Samples analyzed for <u>Dissolved</u> Inorganics were field filtered using a 0.45 micron, gravity flow filter.

  14) Detailed summary tables which list report limits and qualified data values for each compound analyzed for by the laboratory as well as qualified laboratory reports are available upon request.



		Sar	npling Event (All	Results Expre	ssed in Units of p	μg/l)	
		Baseline	Results			Quarterly Results	
-	Santamber-02	December-02	Fohrmary 03	Mov-03	August-03	November-03	March-04

		Baseline	Results			Quarterly Result			
Compound	September-02	December-02	February-03	May-03	August-03	November-03	March-04	TRIGGER LEVEL	CRQL
Inorganics - Metals (Dissolved) <sup>13</sup>						_			
Aluminum	_	_	_		_	25.8	25.8		200
Antimony	6.3 B	6.7 B	3.0	7.3	3.7	3.7	4.5	60	60
Arsenic	10.6	13.7	3.6	2.9	4.7	7.5	2.9	20	10
Barium	104 B	98.2 B	64.7	67.7	77.7 J	83.3	39.4	1,000	200
Beryllium	0.1 U	0.1 U	0.1	0.1	0.1	0.1	0.1	5	5
Cadmium	0.2 U	0.2 U	0.2 UJ	0.2	0.2	0.2	0.3	5	5
Calcium	_	_	_	_	_	191,000	191,000		5,000
Chromium	0.7 U	4.4 B	1.6	3.3	3.8	0.8	1.1	11	10
Cobalt	0.7 0	1.17 2	1.0			2.0	1.4		50
Copper	1.0 U	1.0 U	1.0 UJ	1.2	1.2	1.2	8.0	25	25
fron	2,770	12,500	3,270	1,940	6,100 J	5,100	187	7,000	100
ead	1.3 U	1.3 UJ	1.3 R	1.5 UJ	1.5	1.5	1.5	4.2	3
						35,700	29,100	4.2	5,000
Magnesium				<del></del>					
Manganese		-	-		-	866	485	0.2	15
Mercury	0.1 U	0.1 U	0.1 UJ	0.1	0.1	0.1	0.1	0.2	0.2
Nickel	3.1 B	5.0 B	2.4	4.2	4.0	4.0	4.2	96	40
Potassium						10,100	6,990		5,000
Selenium	5.3 J	4.0 U	4.0 R	4.4	4.4	4.4 R	4.4 UJ	8.5	5
Silver	0.7 B	3.4 B	0.5	0.4	0.4	0.4	0.4	10	10
Sodium	_	_	_	_		28,300	27,900		5,000
Γhallium	5.6 B	3.6 UJ	3.6	2.6 UJ	2.6	2.6 UJ	2.6	40	10
Vanadium	_	_	_	_	_	0.8	1.2		50
Zinc	4.1 B	18.5 B	0.8 UJ	7.4	13.1	4.8 J	0.6	86	20
Inorganics - Metals and Cyanide		X.							
(Total)									
Aluminum	_	_	_			1,080	452		
Antimony	_	6.7 B	3.0	4.5	3.7	3.7	4.8		
Arsenic	_	13.7	3.6	3.2	17.9	3.7	2.9		
Barium	1-	98.2 B	84.4	69.5	202	91.3	44.1		
Beryllium	_	0.1 U	0.1	0.1	0.2	0.1	0.2		
Cadmium	_	0.2 U	0.2 UJ	0.2	0.2	0.2	0.3		
Calcium	_	_	_	_		190,000	187,000		
Chromium	_	4.4 B	5.6	2.9	23.2 J	2.1	1.9		
Cobalt	_	_	_	_	_	3.3	1.7		
Copper	_	1.0 U	1.0 UJ	1.2	28.2	4.2	22.2		
Cyanide	4.0 U	4.0 U	4.0	3.0	3.0	3.0	0.5	10	10
Iron	_	12,500	8,720	2,330	33,400 J	8,640	2,430		
Lead	_	1.3 UJ	1.3 R	1.5 UJ	19.7 J	1.6	22.1		
Magnesium	_	_	_	_	_	37,500	30,000		
Manganese	_	_	_	_	1 -	922	527		
Mercury	_	0.1 U	0.1 UJ	0.1	0.1	0.1	0.1		
Nickel	_	5.0 B	6.6	4.1	29.5	7.6	4.3		
Potassium	_		-			9,430	6,950		
Selenium		4.0 U	4.0 R	4.4	4.4 R	4.4 UJ	4.4 UJ		
Silver	_	3.4 B	0.5	0.4	0.4	0.4	0.4		
Sodium	_	_	- 0.5	-		27,700	27,000		
Fhallium	_	3.6 UJ	3.8 UJ	2.6 UJ	2.6 UJ	2.6	2.6		
Vanadium	_	_		_		0.8	2.1		
Zinc	_	18.5 B	9.9 J	18.3	96.7 J	13.8 J	7.3 J		
Volatile Organic Compounds (VOCs)	BRL	BRL	BRL	BRL	BRL	BRL	BRL		
Carbon disulfide	1.0 U	1.0 U	1.0 U	1.0 U	1.4	1.0 U	1.0 U	<del>                                     </del>	10
Semi-Volatile Organic Compounds	BRL	BRL	BRL	BRL	BRL	BRL	BRL		10
(SVOCs) Bis (2-ethlyhexyl) phthalate	12.0 U	57.0 J	10.0 U		40.6			49	10
				10.0 U		10.0 U	10.0 U	49	10
Pesticides / PCBs	BRL	BRL	BRL	BRL	BRL	BRL	BRL		

## Notes:

- 1) All results expressed in micrograms per liter ( $\mu g/L$ ).
- 2) Standard Inorganic Data Qualifiers have been used.
- 3) Yellow shading indicate a detection above the Contract Required Quantitation Limit (CRQL)
- 4) Bold red letters with a thick outline indicates a detection above the Trigger Level.
- 5) BRL = Below Report Limit; reported data values have a data qualifier of U. J, or UJ
- 6) = Constituent not analyzed.
  7) U = Not detected at the listed reporting limit.
- 8) B = An estimated value above the method detection limit (MDL) or the instrument detection limit (IDL) but below the CRQL.
- 9) UJ = A value less than the CRQL but greater than the MDL.
- 10) J = The analyte was positively identified; the associated numerical value is the approximate concentration of analyte in the sample.

  11) R = The sample results are rejected due to deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte can not be verified.
- 12) CRQL = Contract Required Quantitation Limit
- 13) Samples analyzed for Dissolved Inorganics were field filtered using a 0.45 micron, gravity flow filter.
- 14) Detailed summary tables which list report limits and qualified data values for each compound analyzed for by the laboratory as well as qualified laboratory reports are available upon request.



	Sampling Event (All Results Expressed in Units of μg/l)								
		Baseline	Results			Quarterly Result	s		
duminum datimony darsenic darium datium dati	September-02	December-02	February-03	May-03	August-03	November-03	March-04	TRIGGER LEVEL	CRQL
Inorganics - Metals (Dissolved) <sup>13</sup>									
Aluminum	_	_		_		25.8	25.8		200
Antimony	7.3 B	12.7 B	3.0	9.6	3.7	3.7	3.7	60	60
Arsenic	4.9 B	3.6 U	3.6	2.9	2.9	2.9	2.9	20	10
Barium	174 B	157 B	162	146	145 J	126	111	1,000	200
Beryllium	0.1 U	0.1 U	0.1	0.1	0.1	0.1	0.1	5	5
Cadmium	0.2 U	0.2 U	0.2 UJ	0.2	0.2	0.2	0.2	5	5
Calcium	_	_	_	_	_	123,000	122,000	bir tintania (iki	5,000
Chromium	1.5 B	4.1 B	3.5	3.5	3.5	0.8	2.1	11	10
Cobalt	_	_	_	_	_	0.4	0.5		50
Copper	1.1 B	5.2 B	1.0 UJ	4.4	2.4	2.7	1.2	25	25
Iron	6.2 B	4.9 U	317	14.1	14.1	14.1	14.1	7,000	100
Lead	1.3 U	1.3 UJ	1.3 R	1.5 UJ	1.5	1.5	1.5	4.2	3
Magneisum	_	_		_	_	49,200	48,700		5,000
	_	_	_	_	_	51.4	164 J		15
	0.1 UJ	0.1 U	0.1 UJ	0.1	0.1	0.1	0.1	0.2	0.2
CONTRACTOR OF THE PROPERTY OF	3.2 B	2.7 B	1.8	2.1	0.7	0.1	1.8	96	40
	3.2 B	2.7 B	1.6	2.1	- 0.7	10,800	11,100	70	5,000
	4.0 U	4.0 U	4.0 R	4.4	4.4	4.4 R	4.4 UJ	8.5	5
	0.5 U	6.0 B	0.5	0.5	0.4	0.4 0.4	0.4	10	10
	0.5 0	0.0 Б	0.5	0.5	0.4	120,000	120,000	10	5,000
	7.9 B			26111	26		2.6	40	10
	7.9 B	3.6 UJ	3.6	2.6 UJ	2.6	2.6 UJ		40	50
and the second s	0.8 U		0.8 UJ		110	0.8 0.9 J	1.6 0.6 UJ	86	20
	0.8 0	11.4 B	0.8 03	7.4	11.0	0.9 J	0.6 03	00	20
					1	24,100	13,200	1	
		18.4 B	3.0	4.7	3.7	3.7	6.1		
	_	17.0	20.7	8.7	18.3	17.7	8.3 J		
	_	471	1,170	615	800	633	361		
		0.5 B	1.7	0.8	1.1	1.5	1.1		
Cadmium	_	0.2 U	0.2 UJ	0.2	0.2	1.1	1.6		
	_	-	- 0.2 0.0			618,000	337,000		
	_	38.6	85.5	49.3	68.6 J	49.5	29.6		
		36.0	05.5	45.5	08.0 3	33.5	15.6		
		42.3	76.1 UJ	45.2	68	72.8	42.7		
Cyanide	4.0 U	4.0 U	4.0	_	3.0	3.0	1.0	10.0	10.0
Iron	-	34,000	85,100	51,500	65,400 J	60,800	35,000	10.0	
Lead	_	33.3 J	68.0 UJ	33.6 J	65.2 J	72.8	39.5		
	_	_	-	_	-	137,000	88,000		
Manganese	_	_	_	_	_	3,380	1,460		
Mercury	_	0.1 U	0.1 UJ	0.1	0.1	0.1	0.1		
Nickel	_	38.1 B	86.4	53.4	75.7	64.3	35.4		
Potassium	_	_	_	_	_	15,100	13,900		
Selenium	_	13.7	4.0 R	4.4	4.4 R	4.4 UJ	4.4 UJ		
Silver	_	5.4 B	0.5	0.4	0.4	0.4	0.4		
Sodium	_	_	_	_	_	121,000	123,000		
Thallium	_	3.6 UJ	3.6 UJ	2.6 UJ	2.6 UJ	2.6	6.9 J		
Vanadium	_	_	_	_	_	40.5	23.0		
Zinc	_	119	242 J	179	234 Ј	181 J	101 J		
Volatile Organic Compounds (VOCs)	BRL	BRL	BRL	BRL	BRL	BRL	BRL		
Semi-Volatile Organic Compounds (SVOCs)	BRL	BRL	BRL	BRL	BRL	BRL	BRL		
Pesticides / PCBs	BRL	BRL	BRL	BRL	BRL	BRL	BRL		

- 1) All results expressed in micrograms per liter ( $\mu g/L$ ).
- 2) Standard Inorganic Data Qualifiers have been used.
- 3) Yellow shading indicate a detection above the Contract Required Quantitation Limit (CRQL)
- 4) Bold red letters with a thick outline indicates a detection above the Trigger Level. 5) BRL = Below Report Limit; reported data values have a data qualifier of U. J, or UJ
  6) — = Constituent not analyzed.
- 7) U = Not detected at the listed reporting limit.
- 8) B = An estimated value above the method detection limit (MDL) or the instrument detection limit (IDL) but below the CRQL.

- 9) UI = A value less than the CRQL but greater than the MDL.
  10) J = The analyte was positively identified; the associated numerical value is the approximate concentration of analyte in the sample.
  11) R = The sample results are rejected due to deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte can not be verified.
- 12) CRQL = Contract Required Quantitation Limit
- $13) \ Samples \ analyzed \ for \ \underline{Dissolved} \ Inorganics \ were \ field \ filtered \ using \ a \ 0.45 \ micron, \ gravity \ flow \ filter.$
- 14) Detailed summary tables which list report limits and qualified data values for each compound analyzed for by the laboratory as well as qualified laboratory reports are available upon request.



# **Skinner Landfill** West Chester, Ohio

# Groundwater Analysis Summary Table for Monitoring Well GW-62B

		S	ampling Event (	All Results Expres	sed in Units of p	ıg/l)			
		Baselin	e Results			Quarterly Resul	ts		
Compound	September-02	December-02	February-03	May-03	August-03	November-03	March-04	TRIGGER LEVEL	CRQL
Inorganics - Metals (Dissolved) <sup>13</sup>	Well is Dry	Well is Dry	Well is Dry	Insufficient Volume	Well is Dry	Well is Dry	Well is Dry		
Inorganics - Metals and Cyanide (Total)	_	_	_	-	_	_	_		
Volatile Organic Compounds (VOCs)	_	_	_	BRL	_	_	-		
Benzene	_			3.00		_		5	10
Semi-Volatile Organic Compounds (SVOCs)	_	_		BRL	_	_	-		
Bis (2-Chloroethyl) ether				24.5			_	13.6	10
Pesticides / PCBs	_	_	_	BRL		_	-		

- 1) All results expressed in micrograms per liter ( $\mu g/L$ ).
- Standard Inorganic Data Qualifiers have been used.
   Yellow shading indicate a detection above the Contract Required Quantitation Limit (CRQL)
- 4) Bold red letters with a thick outline indicates a detection above the Trigger Level.
- 5) BRL = Below Report Limit; reported data values have a data qualifier of U. J, or UJ

- 6)— ≈ No Sample Available (Well Dry)
  7) U = Not detected at the listed reporting limit.
  8) B = An estimated value above the method detection limit (MDL) or the instrument detection limit (IDL) but below the CRQL.

- 9) UJ = A value less than the CRQL but greater than the MDL.

  10) J = The analyte was positively identified; the associated numerical value is the approximate concentration of analyte in the sample.

  11) R = The sample results are rejected due to deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte can not be verified.
- 12) CRQL = Contract Required Quantitation Limit
- 13) Samples analyzed for  $\underline{\text{Dissolved}}$  Inorganics were field filtered using a 0.45 micron, gravity flow filter.
- 14) Detailed summary tables which list report limits and qualified data values for each compound analyzed for by the laboratory as well as qualified laboratory reports are available upon request.

		Sai	mpling Event (Al	l Results Expre	essed in Units of	μg/l)	-	]	
		Baseline	e Results			Quarterly Result	s		
Compound	September-02	December-02	February-03	May-03	August-03	November-03	March-04	TRIGGER LEVEL	CRQL
Inorganics - Metals (Dissolved) <sup>13</sup>									
Aluminum	_	_	_	_	T _	25.8	25.8		200
Antimony	11.4 B	13.8 B	3.0	8.9	7.1	3.7	3.8	60	60
Arsenic	15.9	9.5 B	3.6	2.9	2.9	5.4	2.9	20	10
Barium	97.5 B	76.2 B	72.2	50.1	58.8 J	68.6	20.1	1,000	200
Beryllium	0.1 U	0.1 U	0.1	0.1	0.1	0.1	0.2	5	5
Cadmium	0.2 U	0.2 U	0.2 UJ	0.2	0.2	0.2	0.2	5	5
Calcium	_	_	_	_		278,000	295,000		5,000
Chromium	1.2 B	3 B	3.6	3.4	3.2	0.8	1.8	11	10
Cobalt	1.2 B	- J D	J.0		J.2	4.1	1.1	-	50
Copper	1.0 U	1.0 U	1.0 UJ	1.2	1.2	1.2	2.0 J	25	25
Iron	592	758	622	297	1,890 J	1,150	21.4	7,000	100
Lead	1.3 U	1.3 UJ	1.3 R	1.5 UJ	1.5	1.5	1.5	4.2	3
Magnesium	1.5 0	1.5 05	1.5 K	1.5 03	1.5	61,000	67,000	4.10	5,000
Manganese						2,600	271 J		15
				0.1	0.1			0.2	0.2
Mercury	0.1 UJ	0.1 U	0.1 UJ	0.1	0.1	0.1	0.1	0.2	
Nickel	12.8 B	7.4 B	6.6	5.9	8.3	6.9	3.2	96	40
Potassium	_	_				11,600	5,210		5,000
Selenium	15.3	8.7	4.0 R	4.4	4.4	4.4 R	4.4 UJ	8.5	5
Silver	2.0 B	3.6 B	0.5	0.4	0.4	0.4	0.4	10	10
Sodium		_	_	_	_	72,100	46,100		5,000
Thallium	15.9	3.6 UJ	3.6	2.6 UJ	2.6	2.6 UJ	4.6 J	40	10
Vanadium	_	_	_	_	_	0.8	0.8		50
Zinc	0.8 U	7.8 B	0.8 UJ	12.9	10.8	3.7 J	0.6 UJ	86	20
Inorganics - Metals and Cyanide									
(Total)									
Aluminum	_		_	_	_	10,500	26,600		
Antimony	_	20.2 B	3.0	4.6	3.7	3.7	5.7		
Arsenic	_	22.8	30.4	12.6	12.6	9.3	17.1 J		
Barium	_	234	390	178	217	147	186		
Beryllium	_	1.0 B	2.3	0.9	0.9	0.6	2.1		
Cadmium	_	0.2 U	0.2 UJ	0.2	0.2	0.2	2.5		
Calcium	_	_	_	_	_	465,000	465,000		
Chromium		39.2	70.8	30.8	36.1 J	13.7	38.2		
Cobalt	_	_	-	_	-	17.5	28.3		
Copper	_	35.7	77.8 J	29.3	33.0	17.4	69.2		
Cyanide	4.0 U	4.0 U	4.0	3.0	3.0	3.0	0.5	10	10
Iron	_	55,500	109,000	44,100	53,900 J	25,800	63,200		
Lead	_	21.2 J	70.2 UJ	28.5 J	36 J	23.4	41.0		
Magnesium	_		70.2 03		- 50 3	96,100	111,000		
Manganese			=			4,090	2,570		
Mercury		0.1 U	0.1 UJ	0.1	0.1	0.1	0.1		
Nickel		56.6	104	47.5	59.6	31.0	58.1		
Potassium	=	30.0	104	47.5	59.6	31,500	9,320	1	
Selenium		27.8	4.0 R	4.4	4.4 R	4.4 UJ	9,320 4.4 UJ	1	
Silver		7.3 B	0.5	0.4	0.4	0.4	0.4		
Sodium	_	7.5 B	0.5	0.4	0.4	73,600	45,000		
Thallium		3.6 U	3.6 UJ	2.6 UJ	2.6 UJ	2.6	45,000 8.5 J		
Vanadium		-	5.0 03	2.5 03	2.0 03	17.8	43		
Zinc		160	267 J	129	182 J	66.3 J	176 J		
Volatile Organic Compounds (VOCs)	BRL	BRL	BRL	BRL	BRL	BRL	BRL		
Acetone Carbon disulfide	5.0 U 1.0 U	5.0 R 1.0 U	5.0 U 1.0 U	78.0 J 1.0 U	5.0 U 1.3	5.0 U	5.0 R		10
	1.0 0	1.0 0	1.0 0	1.0 0	1.3	1.0 U	1.0 U		10
Semi-Volatile Organic Compounds (SVOCs)	BRL	BRL	BRL	BRL	BRL	BRL	BRL		10
butylbenzylphthalate					-	-	0.61 J	10	10
Pesticides / PCBs	BRL	BRL	BRL	BRL	BRL	BRL	BRL	] [	

## Notes

- 1) All results expressed in micrograms per liter (µg/L).
- 1) An Estatis expressed in interograms per nier (ug/L).
  2) Standard Inorganic Data Qualifiers have been used.
  3) Yellow shading indicate a detection above the Contract Required Quantitation Limit (CRQL).
  4) Bold red letters with a thick outline indicates a detection above the Trigger Level.
  5) BRL = Below Report Limit; reported data values have a data qualifier of U. J, or UJ

- 5) BL = Below Report Laint, reported data values have a data qualifier of U. J., or U.
  6) = Constituent not analyzed.
  7) U = Not detected at the listed reporting limit.
  8) B = An estimated value above the method detection limit (MDL) or the instrument detection limit (IDL) but below the CRQL.
  9) UJ = A value less than the CRQL but greater than the MDL.

- 10) J = The analyte was positively identified; the associated numerical value is the approximate concentration of analyte in the sample.

  11) R = The sample results are rejected due to deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte can not be verified.

  12) CRQL = Contract Required Quantitation Limit
- 13) Samples analyzed for Dissolved Inorganics were field filtered using a 0.45 micron, gravity flow filter.
- 14) Detailed summary tables which list report limits and qualified data values for each compound analyzed for by the laboratory as well as qualified laboratory reports are available upon request.



# **Skinner Landfill** West Chester, Ohio

# Groundwater Analysis Summary Table for Monitoring Well GW-64

	Sampling Event (All Results Expressed in Units of μg/l)								
		Baseline	Results			Quarterly Result			
Compound	September-02	December-02	February-03	May-03	August-03	November-03	March-04	TRIGGER LEVEL	CRQL
norganics - Metals (Dissolved) <sup>13</sup>									
Aluminum			_	_	_	25.8	25.8	a sales de la constante de la	200
Antimony	5.9 B	12.3 B	3.0	5.3	4.2	3.7	3.7	60	60
Arsenic	9.2 B	7.3 B	3.6	2.9	2.9	2.9	2.9	20	10
Barium	34.6 B	53.5 B	31.0	28.9	31.5 J	44.6	28.3	1,000	200
Beryllium	0.1 U	0.1 U	0.1	0.1	0.1	0.1	0.1	5	5
Cadmium	0.2 U	0.2 U	0.2 UJ	0.2	0.2	0.2	0.2	5	5
Calcium	_	_	_	_	_	185,000	176,000	TO A STATE OF THE	5,000
Chromium	1.2 B	20.4	4.9	6.5	3.8	0.8	1.7	11	10
Cobalt	_		_	_	_	0.5	1.8		50
Copper	1.8 B	10.4 B	1.0 UJ	4.9	4.5	3.4	1.2	25	25
Iron	4.9 U	19,500	63.2 R	52.6	14.1	14.1	14.1	7,000	100
Lead	1.3 U	3.7 J	1.3 UJ	1.5 UJ	1.5	1.5	1.5	4.2	3
Magnesium	_	_	_			61,800	56,700		5,000
Manganese	_	_	_	_	_	292	1,170 J	No. of Contrast of	15
Mercury	0.1 U	0.1 U	0.1	0.1	0.1	0.1	0.1	0.2	0.2
Nickel	10.9 B	33.6 B	12.8 R	13.4	9.4	5.2	7.8	96	40
Potassium	10.5 В	33.0 B	12.6 K	10.4		12,300	12,900		5,000
Selenium	6.6 J	4.6 B	4.0	4.4	4.4	4.4 R	4.4 UJ	8.5	5
Silver	0.8 B	5.7 B	0.5	0.4	0.4	0.4	0.4	10	10
Sodium	0.6 Б	5.7 B	0.5	0.4	0.4	67,600	53,900	10	5,000
Thallium	3.9 B	3.6 UJ	3.6	2.6 UJ	2.6	2.6 UJ	2.6	40	10
Vanadium		3.0 UJ	3.0			0.8	0.8	40	50
	0.8 U	64.5	0.8 UJ	- 0.1	-		0.6 UJ	86	20
Zinc Inorganics - Metals and Cyanide	0.6 0	04.3	0.6 03	9.1	16.1	2.6 J	0.0 03	00	20
(Total)									
Aluminum		_				18,700 J	3,080		
Antimony		12.3 B	3.0	5.6	3.7	3.7	4.9		
enic		7.3 B	4.3	2.9	6.2	10.8	2.9		
um		53.5 B	59.5	47.9	58.3	95.9	37.1		
eryllium		0.1 U	0.5	0.1	0.2	1.0	0.3	l	
Cadmium		0.1 U	0.2 UJ	0.1	0.2	0.2	0.3	-	
Calcium		-	0.2 03	0.2	0.2	311,000	213,000		
			22.9	14.0	22.4.7				
Chromium		20.4	22.9	14.8	22.4 J	29.4	7.0		****
Copper		10.4 B	2.2 J	9.6	16.0	23.1 16.3	5.4 11.3		
Cyanide	4.0 U	4.0 U	4.0	3.0	3.0	3.0	1.3	10	10
Cyanide								10	10
Iron Lead	<del>-</del>	19,500 3.7 J	25,900 8.1 UJ	14,700 1.7 J	24,300 J 9.7 J	42,900 20.0	7,520 1.5		
							and the second s		
Magnesium Manganese			=			77,300 2,390	66,000 1,650		
	_								
Mercury		0.1 U	0.1 UJ	0.1	0.1	0.1	0.1		
Nickel		33.6 B	38.3	26.1	33.9	46.0	16.4		
Potassium	<del></del>	46 D	- 10 P			14,700	15,000		
Selenium		4.6 B	4.0 R	4.4	4.4 R	4.4 UJ	4.4 UJ		
Silver Sodium		5.7 B	0.5	0.4	0.4	0.4 68,300	0.4 59,800		
Thallium		3.6 UJ	3.6 UJ	2.6 UJ	2.6 UJ	2.6	2.6		
Vanadium		5.0 UJ	3.0 03	2.6 03	2.0 03	27.3	5.3		
Zinc		64.5	51.3 J	69.1	73.6 J	114 J	13.6 J		
Volatile Organic Compounds (VOCs)	BRL	BRL	BRL	BRL	BRL	BRL	BRL		
Semi-Volatile Organic Compounds	BRL	BRL	BRL	BRL	BRL	BRL	BRL		
(SVOCs) Bis (2-ethlyhexyl) phthalate	12.0 U	10.0 U	10.0 U	10.0 U	10.0	10.0 U	10.0 U	49	10
								-	10
Pesticides / PCBs	BRL	BRL	BRL	BRL	BRL	BRL	BRL		

# Notes:

- 1) All results expressed in micrograms per liter ( $\mu$ g/L).
- Standard Inorganic Data Qualifiers have been used.
   Yellow shading indicate a detection above the Contract Required Quantitation Limit (CRQL)
- 4) Bold red letters with a thick outline indicates a detection above the Trigger Level.
- 5) BRL = Below Report Limit; reported data values have a data qualifier of U. J, or UJ
- = Constituent not analyzed.
- 7) U = Not detected at the listed reporting limit.
- 8) B = An estimated value above the method detection limit (MDL) or the instrument detection limit (IDL) but below the CRQL.
- 9) UJ = A value less than the CRQL but greater than the MDL.
- (0) J = The analyte was positively identified; the associated numerical value is the approximate concentration of analyte in the sample.
- 11) R = The sample results are rejected due to deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte can not be verified.
- 12) CRQL = Contract Required Quantitation Limit
- 13) Samples analyzed for Dissolved Inorganics were field filtered using a 0.45 micron, gravity flow filter.
- 14) Detailed summary tables which list report limits and qualified data values for each compound analyzed for by the laboratory as well as qualified laboratory reports are available upon request.



## Sampling Event (All Results Expressed in Units of $\mu g/I$ ) **Baseline Results Quarterly Results** TRIGGER LEVEL Compound September-02 December-02 February-03 May-03 August-03 November-03 March-04 CRQL Inorganics - Metals (Dissolved)<sup>13</sup> Insufficient Volume 60 Antimony 10 Arsenic Barium 200 Beryllium Cadmium Chromium 10 Copper 100 Lead Mercury 40 Nickel Seleniu Silver 10 Thallium 10 20 Inorganics - Metals and Cyanide (Total) Antimony Arsenic Barium Beryllium Chromium Copper Cyanide Lead Mercury Selenium Silver Thallium BRL BRL BRL BRL BRL BRL BRL olatile Organic Compounds (VOCs) Semi-Volatile Organic Compounds BRI BRI BRL BRL BRL BRL (SVOCs) 4-Nitrophenol 50.0 U 29.8 UJ 10.0 U 10.0 U 10.0 U 10.0 U Bis (2-ethlyhexyl) phthalate 20.0 U 11 9 II 10.0 U 10.0 U 10.0 U 10.0 U 10 Pesticides / PCBs

- 1) All results expressed in micrograms per liter ( $\mu g/L$ ).
- 2) Standard Inorganic Data Qualifiers have been used.
- 3) Yellow shading indicate a detection above the Contract Required Quantitation Limit (CRQL)
- 4) Bold red letters with a thick outline indicates a detection above the Trigger Level.
- 5) BRL = Below Report Limit; reported data values have a data qualifier of U. J, or UJ
- 6) = No Sample Available (Well Dry)
   7) U = Not detected at the listed reporting limit.
- 8) B = An estimated value above the method detection limit (MDL) or the instrument detection limit (IDL) but below the CRQL.
- 9) UJ = A value less than the CRQL but greater than the MDL.
  10) J = The analyte was positively identified; the associated numerical value is the approximate concentration of analyte in the sample.
- 11) R = The sample results are rejected due to deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte can not be verified.
- 12) CRQL = Contract Required Quantitation Limit
- 13) Samples analyzed for <u>Dissolved</u> Inorganics were field filtered using a 0.45 micron, gravity flow filter.

  14) Detailed summary tables which list report limits and qualified data values for each compound analyzed for by the laboratory as well as qualified laboratory reports are available upon request.

### **Groundwater Analysis Summary Table for Creek Surface Water Sample Location SW-50**

		Sar	npling Event (All	Results Expres	ssed in Units of p	ug/l)			
		Baseline	Results			Quarterly Results	3		
Compound	September-02	December-02	February-03	May-03	August-03	November-03	March-04	TRIGGER LEVEL	CRQL
Inorganics - Metals (Dissolved) <sup>13</sup>									
Aluminum	_	_				25.8	25.8		200
Antimony	3.9 B	9.7 B	3.0 U	9.7 B	3.7	3.7	3.7	60	60
Arsenic	3.6 U	3.6 U	3.6 U	3.6 U	7.1	2.9	2.9	20	10
Barium	69.3 B	50.9 B	57.7 B	50.9 B	55.2	40.0	35.8	1,000	200
Beryllium	0.1 U	0.1 U	0.1 U	0.1 U	0.1	0.1	0.1	5	5
Cadmium	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2	0.2	0.2	5	5
Calcium	-	_				84,100	103,000		5,000
Chromium	0.7 U	2.9 B	2.1 B	2.9 B	1.8	0.8	1.6	11	10
Cobalt		1011		-	- 21	0.5	0.4	25	50 25
Copper	1.0 U 56.0 B	1.0 U 4.9 U	1.0 UJ 129	1.0 U 4.9 U	3.1	4.4 14.1	4.3	7,000	100
Lead	1.3 U	1.3 U	1.3 R	1.3 U	1.5	1.5	1.5	4.2	3
Magnesium	-	-	1.5 K	-	1.5	23,400	29,700	Tile	5,000
Manganese				<u>-</u>	<del></del>	3.8	30.0 J		15
Mercury	0.1 U	0.1 U	0.1 U	0.1 U	0.1	0.1	0.1	0.2	0.2
Nickel	0.8 B	1.7 B	0.8 B	1.7 B	0.7	0.7	1.0	96	40
Potassium	-		-	-	-	3,840	2,980	THE PERSON NAMED IN	5,000
Selenium	4.0 UJ	4.0 UJ	4.0 R	4.0 UJ	4.4	4.4 R	4.4 R	8.5	5
Silver	0.7 B	4.1 B	0.5 U	4.1 B	0.4	0.4	0.4	10	10
Sodium	_	_	_	_	_	32,100	59,200		5,000
Thallium	4.0 B	3.6 U	4.3 J	3.6 U	6.8 J	2.6	2.6	40	10
Vanadium	_	_	_	_	_	0.8	2.2		50
Zinc	1.3 B	11.0 B	0.8 UJ	11.0 B	13.8	0.6 UJ	0.6	86	20
Inorganics - Metals and Cyanide (Total)									
Aluminum	_	_	_	-	_	25.8	62,300 J		
Antimony	_	9.3 B	3.0 U	9.3 B	3.7	3.7	7.3 J		
Arsenic		3.6 U	3.6 U	3.6 U	2.9	3.4	50.7 J		
Barium		50.7 B	58.1 B	50.7 B	55.4	41.3	499 J		
Beryllium Cadmium		0.1 U 0.2 U	0.1 U 0.2 UJ	0.1 U 0.2 U	0.1	0.1	4.9	1	
Calcium		0.2 0	- U.2 UJ	0.2 0	0.2	86,400	5.0 427,000 J		
Chromium		3.2 B							
Cobalt		3.2 B	2.3 B	3.2 B	1.7	0.8	72.6 J 59.7		
Copper		4.4 B	5.7 J	4.4 B	2.5	4.4	131 J		
Cyanide	4.0 U	4.0 U	4.0 U	4.0 U	3.0	3.0	0.8	10	10
Iron	_	4.9 U	141	4.9 U	23.5	69.2	124,000 J		
Lead	_	1.3 U	1.3 R	1.3 U	1.5	1.5	122 J		
Magnesium	_	_	_	_	_	23,900	80,300		
Manganese			_			5.8	5,690		
Mercury		0.1 U	0.1 U	0.1 U	0.1	0.1	0.1		
Nickel	_	1.3 B	0.5 U	1.3 B	1.5	0.7	116 J		
Potassium Selenium		4011		4011	44777	3,990	12,200		
Silver		4.0 U 4.3 B	4.0 R 0.5 U	4.0 U 4.3 B	4.4 UJ 0.4	4.4 R 0.4	4.4 R 0.4	1	
Sodium	_		0.5 0	4.5 B	-	33,000	60,200		
Thallium	_	3.6 UJ	3.6 UJ	3.6 UJ	5.5 J	2.6	2.6		
Vanadium	_	_	_	_	_	0.8	105		
Zinc		13.1 B	2.0 J	13.1 B	10.9	1.3 J	490 J		
Volatile Organic Compounds (VOCs)	BRL	BRL	BRL	BRL	BRL	BRL	BRL		
Semi-Volatile Organic Compounds SVOCs)	BRL	BRL	BRL	BRL	BRL	BRL	BRL		
Fluoranthene					<b>†</b>		0.84 J	10	10
Phenanthrene							0.79 J	10	10
Pyrene							0.67 J		10
Diethylphthalate					+	2.17 J	10.0 U		10
	BRL								

- All results expressed in micrograms per liter (μg/L).
- 2) Standard Inorganic Data Qualifiers have been used.
- 3) Yellow shading indicate a detection above the Contract Required Quantitation Limit (CRQL)
  4) Bold red letters with a thick outline indicates a detection above the Trigger Level.
  5) BRL = Below Report Limit; reported data values have a data qualifier of U. J, or UJ

- 6) = Constituent not analyzed.
  7) U = Not detected at the listed reporting limit.
- 8) B = An estimated value above the method detection limit (MDL) or the instrument detection limit (IDL) but below the CRQL.
- 9) UJ = A value less than the CRQL but greater than the MDL.
- 10) J = The analyte was positively identified; the associated numerical value is the approximate concentration of analyte in the sample.
- 11) R = The sample results are rejected due to deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte can not be verified. 12) CRQL = Contract Required Quantitation Limit
- 13) Samples analyzed for Dissolved Inorganics were field filtered using a .45 micron, gravity flow filter.
- 14) Detailed summary tables which list report limits and qualified data values for each compound analyzed for by the laboratory as well as qualified laboratory reports are available upon request.



#### Groundwater Analysis Summary Table for Creek Surface Water Sample Location SW-51

	Sampling Event (All Results Expressed in Units of µg/l)								
	Baseline Results				Quarterly Result	ts	<u> </u>		
Compound	September-02	December-02	February-03	May-03	August-03	November-03	March-04	TRIGGER LEVEL	CRQL
norganics - Metals (Dissolved) <sup>13</sup>									
Aluminum	_	_		_		25.8	25.8	S. I. Day S.	200
Antimony	5.3 B	8.7 B	3.0 U	8.7 B	3.7	3.7	3.7	60	60
Arsenic	5.8 U	3.6 U	3.6 U	3.6 U	5.3	3.2	2.9	20	10
Barium	60.2 B	54.8 B	59.4 B	54.8 B	49.9	42.2	36.7	1,000	200
Beryllium	0.1 U	0.1 U	0.1 U	0.1 U	0.1	0.1	0.1	5	5
Cadmium	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2	0.2	0.2	5	5
Calcium	_		_	_	_	88,800	106,000		5,000
Chromium	0.7 U	2.7 B	2.5 B	2.7 B	0.8	0.8	1.7	11	10
Cobalt	_	_	_	_	_	0.4	0.4		50
Copper	1.0 U	1.0 U	1.0 UJ	1.0 U	2.2	5.1	3.0	25	25
ron	6.4 B	4.9 U	11.9 B	4.9 U	14.1	14.1	14.1	7,000	100
ead	1.3 U	1.3 U	1.3 R	1.3 U	1.5	1.5	1.5	4.2	3
Magnesium	-	_		_		24,700	31,500		5,000
Manganese	_	_	_	_	_	4.6	29.9 J	The second second	15
Mercury	0.1 U	0.1 U	0.1 U	0.1 U	0.1	0.1	0.1	0.2	0.2
Nickel	0.7 B	1.7 B	0.1 U	1.7 B	0.7	0.7	2.4	96	40
Potassium	- U.7 B	- I./ D	-	1.7 B	0.7	3,910	2,160	70	5,000
Selenium	4.0 UJ	4.0 UJ	4.0 R	4.0 UJ	4.4	4.4 R	4.4 R	8.5	5
Silver	0.5 U	3.3 B	0.5 U	3.3 B	0.4	0.4 0.4	0.4	10	10
					0.4			10	
Sodium		-		_	-	34,000	60,200	40	5,000
Thallium	3.6 U	3.6 U	3.6 UJ	3.6 U	10.6	2.6	2.6	40	10
Vanadium	_	_	-	_	_	0.8	2.4	0/	50
Zinc	0.8 U	26.8	0.8 UJ	26.8	13.9	0.6 UJ	3.4	86	20
Inorganics - Metals and Cyanide									
(Total)									
Aluminum	_	_				25.8	9,250 J		
ntimony	_	7.8 B	3.0 U	7.8 B	3.7	3.7	3.7 UJ		
rsenic		3.6 U	3.6 U	3.6 U	2.9	2,9	11.1 J		
Barium	_	51.8 B	59.3 B	51.8 B	50.9	42.6	112 J		
Beryllium	_	0.1 U	0.1 U	0.1 U	0.1	0,1	0.7		
Cadmium	_	0.2 U	0.2 UJ	0.2 U	0.2	0,2	0.5		
Calcium		_	_	_		86,700	153,000 J		
Chromium	_	2.7 B	2.8 B	2.7 B	1.7	0.8	12.7 J		
Cobalt	_	_	_	_	_	0.4	7.8		
Copper	_	1.0 U	1.0 UJ	1.0 U	1.9	3.2	22.0 J		
Cyanide	4.0 U	4.0 U	4.0 U	4.0 U	3.0	3.0	0.6	10	10
Iron	_	10.0 B	74.8 B	10.0 B	49.5	83.8	17,800 J		
Lead	_	1.3 U	1.3 R	1.3 U	1.5	1.5	17.3 J		
Magnesium	_	_	_	_	_	23,900	38,900 J		
Manganese				_		6.5	685 J	-	
Mercury	_	0.1 U	0.1 U	0.1 U	0.1	0.1	0.1	Ī	
Nickel	_	1.1 B	0.5 U	1.1 B	0.7	0.7	16.4 J		
Potassium	_	_	_	_	_	3,820	4,470		
Selenium	_	4.0 U	4.0 R	4.0 U	4.4 UJ	4.4 R	4.4 R		
Silver		3.0 B	0.5 U	3.0 B	0.4	0.4	0.4		
Sodium		_			_	32,800	61,800		
Гhallium		3.6 UJ	3.6 U	3.6 UJ	5.9 J	2.6	2.6		
Vanadium	_	_	_	_	_	0.8	18.7 J		
Zinc		12.7 B	7.8 J	12.7 B	9.7	0.6 UJ	52.9 J		
Volatile Organic Compounds (VOCs)	BRL	BRL	BRL	BRL	BRL	BRL	BRL		
Semi-Volatile Organic Compounds (SVOCs)	BRL	BRL	BRL	BRL	BRL	BRL	BRL		
Pesticides / PCBs	BRL	BRL	BRL	BRL	BRL	BRL	BRL		

- 1) All results expressed in micrograms per liter (µg/L).
- 2) Standard Inorganic Data Qualifiers have been used.
- 3) Yellow shading indicate a detection above the Contract Required Quantitation Limit (CRQL)
- 4) Bold red letters with a thick outline indicates a detection above the Trigger Level.
- 5) BRL = Below Report Limit; reported data values have a data qualifier of U. J, or UJ
- 6) = Constituent not analyzed.
- 7) U = Not detected at the listed reporting limit.
- 8) B = An estimated value above the method detection limit (MDL) or the instrument detection limit (IDL) but below the CRQL.
- 9) UJ = A value less than the CRQL but greater than the MDL.
- 10) J = The analyte was positively identified; the associated numerical value is the approximate concentration of analyte in the sample.
- 11) R = The sample results are rejected due to deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte can not be verified.
- 12) CRQL = Contract Required Quantitation Limit
- 13) Samples analyzed for <u>Dissolved</u> Inorganics were field filtered using a .45 micron, gravity flow filter.
- 14) Detailed summary tables which list report limits and qualified data values for each compound analyzed for by the laboratory as well as qualified laboratory reports are available upon request.



#### Groundwater Analysis Summary Table for Creek Surface Water Sample Location SW-52

			Sampling Event (	All Results Exp	ressed in Units of			1	
		Baseline	Results			Quarterly Results		1	
Compound	September-02	December-02	February-03	May-03	August-03	November-03	March-04	TRIGGER LEVEL	CRQL
Inorganics - Metals (Dissolved) <sup>13</sup>									
Aluminum	T -	_				25.8	25.8		200
Antimony	4.6 B	6.5 B	3.0 U	6.5 B	3.7	3.7	3.7	60	60
Arsenic	5.0 B	3.6 U	3.6 U	3.6 U	4.9	2.9	2.9	20	10
Barium	64.3 B	52.8 B	57.7 B	52.8 B	54.2	40.7	40.7	1,000	200
Beryllium	0.1 U	0.1 U	0.1 U	0.1 U	0.1	0.1	0.1	5	5
Cadmium	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2	0.2	0.2	5	5
Calcium	_	_	_	_	_	86,000	107,000		5,000
Chromium	0.8 B	2.8 B	3.5 B	2.8 B	2.1	0.8	1.3	11	10
Cobalt	_	_	_	_	-	0.4	0.4		50
Copper	1.0 U	1.0 U	1.0 UJ	1.0 U	2.3	3.7	2.0	25	25
Iron	4.9 U	4.9 U	575	4.9 U	14.1	14.1	14.1	7,000	100
Lead	1.3 U	1.3 U	1.3 R	1.3 U	1.5	1.5	1.5	4.2	3
Magnesium	_	_	_	_		23,500	30,700	Maria Maria	5,000
Manganese	_	_				5.0	1.5 J		15
Mercury	0.1 U	0.1 U	0.1 U	0.1 U	0.1	0.1	0.1	0.2	0.2
Nickel	0.5 U	1.2 B	1.5 B	1.2 B	1.1	0.7	0.7	96	40
Potassium	_	_	_	_	_	3,720	1,900		5,000
Selenium	4.0 UJ	4.0 UJ	4.0 R	4.0 UJ	4.4	4.4 R	4.4 R	8.5	5
Silver	0.5 U	3.5 B	0.5 U	3.5 B	0.4	0.4	0.4	10	10
Sodium	_	_	_	_		32,900	61,400		5,000
Thallium	3.6 U	3.6 U	3.6 UJ	3.6 U	6.2 J	2.6	2.6	40	10
Vanadium	_	_	_	_	_	0.8	1.9		50
Zinc	0.8 U	15.8 B	0.8 UJ	15.8 B	26.5	1.5 J	4.5	86	20
Inorganics - Metals and Cyanide									
(Total)									
Aluminum	_	_	1	_	_	25.8	26.8 J		
Antimony	_	5.9 B	3.0 U	5.9 B	3.7	3.7	3.7 UJ		
nic	_	3.6 U	3.6 U	3.6 U	2.9	2.9	2.9		
am	_	53.2 B	58.4 B	53.2 B	54.4	41.2	41.7 J		
Beryllium	_	0.1 U	0.1 U	0.1 U	0.1	0.1	0.1		
Cadmium	_	0.2 U	0.2 UJ	0.2 U	0.2	0.2	0.2		
Calcium					_	84,800	108,000 J		
Chromium	_	3.7 B	2.4 B	3.7 B	1.5	0.8	1.7 J		
Cobalt	_	_	_	_	-	0.4	0.5		
Copper	_	1.0 U	1.0 UJ	1.0 U	1.7	3.3	3.2 J		
Cyanide	4.0 U	4.0 U	4.0 B	4.0 U	3.0	3.0	0.5 J	10	10
Iron	_	28.2 B	76.7 R	28.2 B	45.9	79.6	67.8 J		
Lead	_	1.3 U	1.3 R	1.3 U	1.5	1.5	1.5		
Magnesium						23,300	31,100 J		
Manganese	_	_			_	6.8	3.2 J	1	
Mercury	_	0.1 U	0.1 U	0.1 U	0.1	0.1	0.1 J		
Nickel	_	1.9 B	0.5 U	1.9 B	0.7	0.7	1.1 J		
Potassium	_	-		_		3,710	1,900		
Selenium		4.0 U	4.0 R	4.0 U	4.4 UJ	4.4 R	4.4 R		
Silver Sodium		3.3 B	0.5 U	3.3 B	0.4	0.4	0.6	1	
Thallium	_ =	3.6 UJ	3.6 U	3.6 UJ	6.0 J	32,800 2.6	61,200 2.6		_
Vanadium		3.0 03	3.6 U	3.6 UJ	6.0 J	0.8	2.0 2.2 J		
Zinc	_	12.6 B	6.0 J	12.6 B	8.7	0.6 UJ	0.6		
Volatile Organic Compounds (VOCs)	BRL	BRL	BRL	BRL	BRL	BRL	BRL		
Semi-Volatile Organic Compounds (SVOCs)	BRL	BRL	BRL	BRL	BRL	BRL	BRL		
Pesticides / PCBs	BRL	BRL	BRL	BRL	BRL	BRL	BRL		

- 1) All results expressed in micrograms per liter (µg/L).
- 2) Standard Inorganic Data Qualifiers have been used.
- 3) Yellow shading indicate a detection above the Contract Required Quantitation Limit (CRQL)
- 4) Bold red letters with a thick outline indicates a detection above the Trigger Level.
- 5) BRL = Below Report Limit; reported data values have a data qualifier of U. J, or UJ
- 6) = Constituent not analyzed.
- 7) U = Not detected at the listed reporting limit.

  8) B = An estimated value above the method detection limit (MDL) or the instrument detection limit (IDL) but below the CRQL.
- )) J = The analyte was positively identified; the associated numerical value is the approximate concentration of analyte in the sample.
- 1) R = The sample results are rejected due to deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte can not be verified.
- 12) CRQL = Contract Required Quantitation Limit
- 13) Samples analyzed for Dissolved Inorganics were field filtered using a .45 micron, gravity flow filter.

  14) Detailed summary tables which list report limits and qualified data values for each compound analyzed for by the laboratory as well as qualified laboratory reports are available upon request.



#### Groundwater Analysis Summary Table for Outfall Surface Water Run Off Location SWD-1

		Sampling Event (All Results Expressed in Units of μg/l)							
		Baseline	Results			Quarterly Results	s		
Compound	September-02	December-02	February-03	May-03	August-03	November-03	March-04	TRIGGER LEVEL	CRQL
Inorganics - Metals (Dissolved) <sup>13</sup>			Location is Dry			Location is Dry	Location is Dry		
Antimony	6.9 B	3.3 B	_	5.7 B	3.7		_	60	60
Arsenic	3.6 U	4.3 B	_	2.9 U	2.9	_	_	10	10
Barium	29.1 B	33.0 B	_	22.0 B	20.8	-	_	1,000	200
Beryllium	0.1 U	0.1 U	_	0.1 U	0.1	-	_	5	5
Cadmium	0.2 U	0.2 U	_	0.2 U	0.2	-	_	5	5
Chromium	0.7 U	2.1 B		2 B	0.8	-	_	11	10
Copper	2.5 B	2.4 B	_	9 B	5.1	-	_	25	25
Iron	1.3 U	4.9 U	_	14.1 U	14.1	-	_	5,000	100
Lead	0.1 U	1.3 U	_	1.5 UJ	1.5	-	_	4.2	3
Mercury	0.1 U	0.1 U	_	0.1 U	0.1	_	_	0.2	0.2
Nickel	2.6 B	1.7 B		1.3 B	1.5			96	40
Selenium	4.0 R	4.0 U	_	4.4 U	4.4	_	_	5	5
Silver	0.5 U	2.6 B	_	0.4 U	0.4	_	_	10	10
Thallium	3.6 U	3.6 U	_	2.6 UJ	2.6	_	_	40	10
Zinc	86.6 J	93.7	_	76.2	48.0 J	-	_	86	20
Inorganics - Metals and Cyanide (Tot Antimony	<u>al)</u> 	6.7 B		5.8 B	3.7	_	:		
Arsenic	_	7.2 B	_	2.9 U	2.9	-			
Barium	_	36.1 B	· -	26.4 B	21.7	~	_		
Beryllium	_	0.1 U	_	0.1 U	0.1	-	_		
Cadmium		0.2 U	_	0.1 U	0.2	_			
Chromium		1.9 B	_	0.2 B	0.8	_			
Copper	_	6.3 B	_	3.6 B	24.0	-	_		
Cyanide	4.0 B	4.0 U	_	3.0 U	3.0	-	_	10	10
Iron	_	768	_	461	72.2	_			
Lead		1.3 U	_	1.5 UJ	1.5	-			
Mercury	_	0.1 U		0.1 U	0.1	1			
Nickel	_	3.7 B		1.3 B	1.4	-			
Selenium	_	4.0 U		4.4 U	4.4 UJ	-			
Silver		2.0 B		0.4 U	0.4	-			
Thallium	_	3.6 UJ		2.6 U	2.6 UJ	-	_		
Zinc		102	_	167	91.1 J	_			
Volatile Organic Compounds (VOCs)	BRL	BRL	2—	BRL	BRL	_	_		
Semi-Volatile Organic Compounds (SVOCs)	BRL	BRL	_	BRL	BRL	_	_		

- 1) All results expressed in micrograms per liter ( $\mu g/L$ ).

- All results expressed in micrograms per liter (µg/L).
   Standard Inorganic Data Qualifiers have been used.
   Yellow shading indicate a detection above the Contract Required Quantitation Limit (CRQL)
   Bold red letters with a thick outline indicates a detection above the Trigger Level.
   BRL = Below Report Limit; reported data values have a data qualifier of U. J, or UJ
   = No Sample Available (location is dry)
   U = Not detected at the listed reporting limit.
   B = An estimated value above the method detection limit (MDL) or the instrument detection limit (IDL) but below the CRQL.

- 8) B = An estimated value above the method detection limit (MDL) or the instrument detection limit (IDL) but below the CRQL.

  9) UI = A value less than the CRQL but greater than the MDL.

  10) J = The analyte was positively identified; the associated numerical value is the approximate concentration of analyte in the sample.

  11) R = The sample results are rejected due to deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte can not be verified.

  12) CRQL = Contract Required Quantitation Limit

  13) Samples analyzed for <u>Dissolved</u> Inorganics were field filtered using a .45 micron, gravity flow filter.

  14) Detailed summary tables which list report limits and qualified data values for each compound analyzed for by the laboratory as well as qualified laboratory reports are available upon request.

#### **Groundwater Analysis Summary Table for Outfall Surface Water Run Off Location SWD-2**

	Sampling Event (All Results Expressed in Units of µg/l)							]	
		Baseline	Results		Quarterly Results			1	
Compound	September-02	December-02	February-03	May-03	August-03	November-03	March-04	TRIGGER LEVEL	CRQL
Inorganics - Metals (Dissolved) <sup>13</sup>	Location is Dry	Location is Dry		-		Location is Dry	Location is Dry		
Antimony	_	_	3.9 B	4.6 B	3.7		_	60	60
Arsenic	_	_	3.6 U	2.9 U	2.9	_	_	20	10
Barium	_	_	15.9 B	20.4 B	29.1	_	_	1,000	200
Beryllium	_	_	0.1 B	0.1 U	0.1	_	_	5	5
Cadmium	_	_	0.2 U	0.2 U	0.2	_	_	5	5
Chromium	_	_	0.7 U	2.4 B	0.8		_	- 11	10
Copper	_	_	2.3 B	5.0 B	1.2	_	_	25	25
Iron	_	_	4.9 U	14.1 U	14.1	_	_	7,000	100
Lead	_	_	1.3 U	1.5 UJ	1.5	_	_	4.2	3
Mercury	_	_	0.1 U	0.1 U	0.1	_	_	0.2	0.2
Nickel		_	1.8 B	2.8 B	2.3			96	40
Selenium	_	_	4.0 U	4.4 U	4.4	_	_	8.5	5
Silver	_	_	0.5 U	0.4 U	0.4	_	_	10	10
Γhallium	_	_	7.1 B	2.6 U	2.6		_	40	10
Zinc	_	_	1.0 B	5.5 B	23.6 J	_	_	86	20
(Total) Antimony Arsenic Barium	=	=	8.5 B 3.6 U 15.6 B	5.0 B 2.9 U 21.7 B	4.0 2.9 28.4	_ _ _	=		
Beryllium	_	_	0.1 U	0.1 U	0.1	_	_		
Cadmium		_	0.2 U	0.2 U	0.2	_			
Chromium			2.2 B	2.1 B	0.8	_			
Copper		_	10.9 B	2.8 B	11.7	_			
Cyanide	_	_	4.0 U	_	3.0	_	_	10	10
Iron		_	20.6 B	131	17.4	_			
Lead			1.3 U	1.5 UJ	1.5				
Mercury	_	_	0.1 U	0.1 U	0.1	_			
Nickel			2.8 B	2.6 B	2.4				
Selenium	_		4.0 UJ	4.4 U	4.4 UJ	_			
Silver		_	0.5 U	0.4 U	0.4	_			
Thallium			3.6 U	2.6 UJ	2.6 UJ				
Zinc		_	4.5 B	14.7 B	30.0 J				
Volatile Organic Compounds (VOCs)	_	_	_	_	BRL	_	_		
bis(2-Chloroethly) ether		_		_				13.6	10.0
Semi-Volatile Organic Compounds (SVOCs)	_	-	BRL	BRL	BRL		_		
Pesticides / PCBs	-	-	BRL	BRL	BRL	_	_		

Laboratory Analytical data for July, August, and September of 2001 for SWD-2 is labeled as sample location "SWD-4" which was an alternate sample location in very close proximity to SWD-2 used when sample was not available a 1) All results expressed in micrograms per liter ( $\mu g/L$ ).

- 2) Standard Inorganic Data Qualifiers have been used.
- 3) Yellow shading indicate a detection above the Contract Required Quantitation Limit (CRQL)
- 4) Bold red letters with a thick outline indicates a detection above the Trigger Level.
  5) BRL = Below Report Limit; reported data values have a data qualifier of U. J, or UJ

- 6) = No Sample Available (location is dry)
  7) U = Not detected at the listed reporting limit.
  8) B = An estimated value above the method detection limit (MDL) or the instrument detection limit (IDL) but below the CRQL.
- 9) UJ = A value less than the CRQL but greater than the MDL.
- 10) J = The analyte was positively identified; the associated numerical value is the approximate concentration of analyte in the sample.

  11) R = The sample results are rejected due to deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte can not be verified.
- 12) CRQL = Contract Required Quantitation Limit
- 13) Samples analyzed for <u>Dissolved</u> lnorganics were field filtered using a .45 micron, gravity flow filter.

  14) Detailed summary tables which list report limits and qualified data values for each compound analyzed for by the laboratory as well as qualified laboratory reports are available upon request.



#### Groundwater Analysis Summary Table for Outfall Surface Water Run Off Location SWD-3

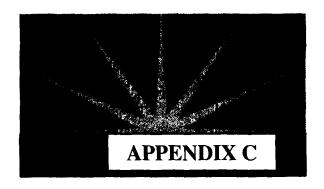
		San	npling Event (Al	Results Expre	ssed in Units of	μg/l)		1	
1	Baseline Results				Quarterly Result	s	1		
Compound	September-02	December-02	February-03	May-03	August-03	November-03	March-04	TRIGGER LEVEL	CRQL
Inorganics - Metals (Dissolved) <sup>13</sup>				<del></del>					
Aluminum	_		_		_	98.7	34.6	The State of the S	200
Antimony	5.0 B	6.5 B	3.5 B	3.7 U	3.7	3.7	3.7	60	60
Arsenic	4.2 B	3.6 U	3.6 U	2.9 U	2.9	2.9	5.3	20	10
Barium	23.4 B	13.3 B	34.1 B	26.6 B	19.1	40.1	29.8	1,000	200
Beryllium	0.2 B	0.1 U	0.3 B	0.1 U	0.1	0.1	0.2	5	5
Cadmium	0.2 U	0.2 U	0.2 U	0.2 U	0.2	0.2	0.2	5	5
Calcium	_	_	_	_	_	130,000	125,000		5,000
Chromium	0.7 U	2.7 B	0.7 U	2.3 B	0.8	1.4	0.8	11	10
Cobalt	_	_	_	_	_	0.4	0.4		50
Copper	2.0 B	1.0 U	1.0 U	2.3 B	1.2	10.4	4.6 J	25	25
Iron	14.3 B	4.9 U	59.5 B	14.7 B	14.1	59.0	17.2	7,000	100
Lead	1.3 U	1.3 U	1.3 U	1.5 UJ	1.5	1.5	1.5	4.2	3
Magnesium	_	_		_	_	28,500	30,400	THE RESIDENCE	5,000
Manganese	_	_	_	_	_	10.9	3.0		15
Mercury	0.1 U	0.1 U	0.1 U	0.1 U	0.1	0.1 UJ	0.1	0.2	0.2
Nickel	3.7 B	2.6 B	0.5 U	1.1 B	1.1	0.7	1.4	96	40
Potassium	- J.i D		-		***	3,870	3,570		5,000
Selenium	4.0 U	4.0 U	4.0 R	4.4 U	4.4	4.4	4.4 UJ	8.5	5
Silver	0.5 U	2.4 B	0.6 B	0.4 U	0.4	0.4	0.4	10	10
Sodium	0.5 0	2.7 5	0.0 B	-	0.4	11,100	12,200	10	5,000
Thallium	3.6 U	3.6 U	6.5 J	2.6 UJ	2.6	2.6	2.6	40	10
Vanadium	3.0 0	3.0 0	0.5 3	2.0 03	2.0	2.2	0.8	40	50
Zinc	6.7 B	14.9 B	3.2 B	2.2 B	19.0 J	91.6 J	0.6 UJ	86	20
Inorganics - Metals and Cyanide	0.7 B	14.7 D	3.2 B	Z.Z B	19.0 J	71.0 J	0.0 03	00	20
(Total)									
						122	1.000		
Aluminum						177	1,800		
Antimony		6.5 B	4.0 B	4.1 B 2.9 U	3.7	3.7	5.2 2.9		
Arsenic	_	3.6 U	3.6 U		2.9	2.9			
Barium		24.3 B	41.8 B	37.7 B	29.0	37.0	40.0 0.2		
Beryllium Cadmium		0.1 U 0.2 U	0.1 U 0.2 U	0.1 U 0.2 U	0.1	0.1	0.2	-	
	_	0.2 0	0.2 0	0.2 0	0.2				
Calcium		-	-	- 125		12,100	131,000	<del>                                     </del>	
Chromium	_	5.0 B	6.4 B	4.2 B	0.8	1.0	1.4		
Cobalt	_				-	0.4	1.5	-	
Copper	4.0 B	4.4 B 4.0 U	8.8 B 4.0 U	6.0 B 3.0 U	8.6 3.0	3.0	11.0 J 0.8	10	10
Cyanide		3,380	1,620	3,0 0			2000	10	10
Iron Lead		1.3 U	1,620 1.4 B	3,290 1.5 UJ	3,360 1.5	155 1.5	2,200 1.5	1	
Magnesium	The second secon	1.5 U	1.4 B	1.5 UJ	1.3	26,600	31,600		
Maganese Manganese					<del>-</del>	26,600 16.5	31,600 87.5		
		0.1 U	0.1.17	0111	0.1		0.1	+	
Mercury Nickel	====	5.1 B	0.1 U 2.5 B	0.1 U 3.4 B	0.1 4.2	0.1 UJ 0.7	2.5		
Potassium		J.1 B	2.3 B	3.4 B	4.2	3,560	4,170		
Selenium		4.0 U	4.0 UJ	4.4 U	4.4 UJ	4.4	4,170 4.4 R	1	
Silver		2.6 B	0.5 U	0.4 U	0.4	0.4	0.4 0.4		
Sodium	_		-	-	-	10,300	12,600		
Thallium	_	3.6 UJ	3.6 U	2.6 UJ	2.6 UJ	2.6	2.6		
Vanadium	_		_	=		0.8	2.2		
Zinc	_	35.4	59.0	32.3	42.9 J	32.6 J	14.6 J		
Volatile Organic Compounds (VOCs)	BRL	BRL	BRL	BRL	BRL	BRL	BRL		
Semi-Volatile Organic Compounds (SVOCs)	BRL	BRL	BRL	BRL	BRL	BRL	BRL		
Pesticides / PCBs	BRL	BRL	BRL	BRL		BRL	BRL		

- 1) All results expressed in micrograms per liter ( $\mu g/L$ ).
- Standard Inorganic Data Qualifiers have been used.
   Yellow shading indicate a detection above the Contract Required Quantitation Limit (CRQL)
- 4) Bold red letters with a thick outline indicates a detection above the Trigger Level.
- 5) BRL = Below Report Limit; reported data values have a data qualifier of U. J, or UJ
  6) = Constituent not analyzed.
  7) U = Not detected at the listed reporting limit.

- 8) B = An estimated value above the method detection limit (MDL) or the instrument detection limit (IDL) but below the CRQL.
- 9) UJ = A value less than the CRQL but greater than the MDL.
- 10) J = The analyte was positively identified; the associated numerical value is the approximate concentration of analyte in the sample.

  11) R = The sample results are rejected due to deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte can not be verified.
- 12) CRQL = Contract Required Quantitation Limit
- 13) Samples analyzed for Dissolved Inorganics were field filtered using a .45 micron, gravity flow filter.
- 14) Detailed summary tables which list report limits and qualified data values for each compound analyzed for by the laboratory as well as qualified laboratory reports are available upon request.





# LABORATORY DATA VALIDATION REPORT



#### **DATA VALIDATION REPORT**

FOR

SKINNER LANDFILL SITE

**EARTH TECH: PROJECT NUMBER 54280** 

**LABORATORY REPORT NUMBER 204032408** 

PROJECT MANAGER: Ron Rolker

Date: May 25, 2004

**Data Validator: Mark Kromis** 

### APPENDIX C LIST OF ACRONYMS

BFB Bromofluorobenzene CC Continuing Calibration

CCV Continuing Calibration Verification
CCB Continuing Calibration Blanks
CLP Contract Laboratory Program
CRDL Contract Required Detection Limit
DFTPP Decafluorotriphenylphosphine

GC/MS Gas Chromatograph Mass Spectrometer

IC Initial Calibration

ICB Initial Calibration Blank
IDL Instrument Detection Limit
ICP Inductively Coupled Plasma
ICS Interference Check Sample
ICV Initial Calibration Verification

ILM Inorganic Analysis Multi-Media Multi-Concentration

INDAM Individual A Mixture
INDBM Individual B Mixture
mg/L milligrams per liter

MS/MSD Matrix Spike Matrix Spike Duplicate
OLC Organic Analysis Low Concentration

OLM Organic Analysis Multi-Media Multi-Concentration

**%D** Percent Difference

**% RSD** Percent Relative Standard Deviation

PB Preparation Blanks
QC Quality Control
RF Response Factor

RPD Relative Percent Difference
RRF Relative Response Factor
SDG Sample Delivery Group
SOW Statement of Work

ug/L micrograms per liter

US EPA United States Environmental Protection Agency

VOC Volatile Organic Compounds
VTSR Validated Time of Sample Receipt

# DATA VALIDATION SUMMARY – SAMPLE DELIVERY GROUP 204032408 INORGANICS

Validation of the inorganics data, as prepared by Gulf Coast Analytical Laboratories (GCAL) for the samples collected from the Skinner Landfill site in March 2004, was conducted by Earth Tech using the National Functional Guidelines for Inorganic Data Review, (US EPA, February, 1994), as appropriate. The results were reported by GCAL under Sample Delivery Group (SDG) 204032408.

GCAL#	Sample Description
20403240801	SKSWEB1009
20403240802	SKSW511009
20403240803	SKSW51MS1009
20403240805	SKSW51DUP1009
20403240806	SKSW521009
20403240807	SKSW531009
20403240808	SKSWEB1009 (DISS)
20403240809	SKSW511009 (DISS)
20403240810	SKSW51MS1009 (DISS)
20403240811	SKSW51DUP1009 (DISS)
20403240812	SKSW521009 (DISS)
20403240813	SKSW531009 (DISS)

#### INTRODUCTION

Analysis of metals were performed according to Contract Laboratory Program (CLP)-Inorganic Analysis Multi-media Multi-concentration ILM04.1 Statement of Work (SOW). Results of the sample analyses are reported by the laboratory as either qualified or unqualified. Unqualified results mean that the reported values maybe used without reservation. Various qualifier codes are used by the laboratory to denote specific information regarding the analytical results. The data validation process is intended to evaluate the data on a technical basis. The data package also was subjected to an internal laboratory quality review prior to submission to Earth Tech for data validation.

During the validation process, laboratory-qualified and unqualified data are verified against all available supporting documentation. Based on this evaluation, qualifier codes may be added, deleted or modified by the data user. Final results are therefore, either qualified or unqualified. Validator-qualified results are annotated with the following codes in accordance with the Functional Guidelines:

U The constituent was analyzed for, but was not detected above the level of the associated analytical reporting limit. The associated value is either the sample quantitation limit or the sample detection limit.

- J The analyte was positively identified: the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Details of the inorganics data validation findings and conclusions are provided in the following sections of this report:

- 1. Holding Times
- 2. Calibration
  - A. Initial Calibration (IC)
  - B. Continuing Calibration (CC)
- 3. Blanks
- 4. Inductively Coupled Plasma (ICP) Interference Check Sample
- 5. Laboratory Control Sample (LCS)
- 6. **Duplicate** Analysis
- 7. Spike Sample Analysis
- 8. ICP Serial Dilution
- 9. System Performance
- 10. Documentation
- 11. Overall Assessment

#### 1. HOLDING TIMES

All samples for inorganics analyses were analyzed within the 180-day holding time for preserved aqueous samples. Mercury analyses were conducted within the 28-day holding time for aqueous samples undergoing CLP protocol. Cyanide analyses were conducted within the 14-day holding time. The cooler temperature upon receipt at the laboratory was within the recommended temperature of  $4^{\circ}\text{C}$  +/-  $2^{\circ}\text{C}$ .

#### 2. CALIBRATION

#### A. Initial Calibration

The percent recoveries for the Initial Calibration Verification (ICV) standard were within Quality Control (QC) limits for all constituents.

#### B. Continuing Calibration

The percent recoveries for the Continuing Calibration Verification (CCV) standard were within QC limits for all constituents.

#### 3. BLANKS

The Initial Calibration Blank (ICB), Continuing Calibration Blanks (CCB) and Preparation Blanks (PB) were analyzed at the appropriate frequencies. No constituents were detected in the ICB, CCB, and PB blanks above the corresponding Contract Required Detection Limit (CRDL).

#### 4. ICP INTERFERENCE CHECK SAMPLE

Results for the ICP analysis of the Interference Check Sample (ICS) solution AB were within 20% of the true value.

#### 5. LABORATORY CONTROL SAMPLES

Recoveries were within the control limit (80-120%) for all constituents.

#### 6. DUPLICATE ANALYSIS

The laboratory used sample SKSW511009 for the duplicate sample. The Relative Percent Difference (RPD) between the sample and duplicate results for the dissolved fraction were within the acceptance criteria (<20%) for all target compounds. The Relative Percent Difference (RPD) between the sample and duplicate results for the total fraction were within the acceptance criteria (<20%) for all target compounds with the exception of Arsenic, Barium, Chromium, Copper, Iron, Lead, Nickel, and Zinc. As per the National Functional Guidelines, if the results from a duplicate analysis for a particular analyte falls outside the appropriate fixed control windows; qualify the results for that analyte in all associated samples of the same matrix as estimated (J).

#### 7. SPIKE SAMPLE ANALYSIS

The laboratory used sample SKSW511009 for the matrix spike sample. The MS percent recoveries were within the acceptance criteria (75%-125%) with the exception of Antimony (35%), Arsenic (151%). Selenium (0%), and Zinc (128%) in the total fraction and Arsenic (128%) and Selenium (0%) in the dissolved fraction. As per the National Functional Guidelines: if the percent recovery is greater than 30% and less than 74% qualify detected results for that analyte with "J" and non-detected results with "U". If the percent recovery is less than 30% qualify detected results for that analyte with "J" and non-detected results with "R".

#### 8. ICP SERIAL DILUTION

As noted in the National Functional Guidelines: If the analyte concentration is at least 50 times above the IDL, its serial dilution analysis must then agree within 10% of the original determination after corrected for dilution. The serial dilution is performed to determine whether any significant chemical or physical interference's exist due to matrix effects. The serial dilution percent differences were within the acceptance criteria for all target analytes with the exception of Barium, Chromium, Iron and Nickel in the total fraction. As per the National Functional Guidelines: if the required 10% Difference criteria are not met, qualify the associated data as estimated "J".

#### 9. SYSTEM PERFORMANCE

The analytical system appears to have been working well at the time of these analyses, based on the evaluation of the raw data.

#### 10. **DOCUMENTATION**

The documentation appeared accurate and in order.

#### 11. OVERALL ASSESSMENT

The results are acceptable with the validator-added qualifiers.

### DATA VALIDATION SUMMARY - SAMPLE DELIVERY GROUP 204032408 SEMIVOLATILE ORGANICS

Validation of the Gas Chromatograph/Mass Spectrometer (GC/MS) semi-volatile organics data, as prepared by Gulf Coast Analytical Laboratories (GCAL) for the samples collected from the Skinner Landfill site in March 2004, was conducted by Earth Tech using the National Functional Guidelines for Organic Data Review, (US EPA, October, 1999) as appropriate. The results were reported by GCAL under SDG 204032408.

GCAL#	Sample Description
20403240801	SKSWEB1009
20403240802	SKSW511009
20403240803	SKSW51MS1009
20403240804	SKSW51MSD1009
20403240806	SKSW521009
20403240807	SKSW531009

#### INTRODUCTION

Analyses were performed according to CLP-Organic Analysis Multi-Media, Multi-Concentration OLM04.2 SOW. Results of the sample analyses are reported by the laboratory as either qualified or unqualified. Unqualified results mean that the reported values may be used without reservation. Various data qualifier codes are used by the laboratory to denote specific information regarding the analytical results. The data validation process is intended to evaluate the data on a technical basis. The data package also was subjected to an internal laboratory quality review prior to submission to Earth Tech for data validation.

During the validation process, laboratory-qualified and unqualified data are verified against all available supporting documentation. Based on this evaluation, qualifier codes may be added, deleted or modified by the data user. Final results are therefore, either qualified or unqualified. Validator-qualified results are annotated with the following codes in accordance with the Functional Guidelines:

- U The constituent was analyzed for, but was not detected above the level of the associated analytical reporting limit. The associated value is either the sample quantitation limit or the sample detection limit.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R The sample results are rejected due to sembus deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Details of the semivolatile data validation findings and conclusions are provided in the following sections of this report:

- 1. Holding Times
- 2. GC/MS Tuning
- 3. Calibration
  - A. IC
  - B. CC
- 4. Blanks
- 5. System Monitoring Compound Recovery
- 6. MS/MSD
- 7. Internal Standards Performance
- 8. Compound Identification
- 9. Constituent Quantitation and Reported Detection Limits
- 10. System Performance
- 11. Documentation
- 12. Overall Assessment

#### 1. HOLDING TIMES

All samples were initially extracted within the seven-day technical holding time and the five-day VTSR method holding time. The cooler temperature upon receipt at the laboratory was within the recommended temperature of  $4^{\circ}C = -2^{\circ}C$ .

#### 2. GC/MS TUNING

The samples were analyzed on a single GCMS system, identified as MSSV2. Two decafluorotriphenylphosphine (DFTPP) tunes were run representing the shift in which the standards and samples were analyzed. The DFTPP tunes are acceptable.

#### 3. CALIBRATION

#### A. Initial Calibration

One IC dated 3/19/04 was analyzed in support of the semivolatile sample analyses. Documentation of the IC was present in the data package, and the Relative Response Factor (RRF), as well as percent % RSD values were accurately reported for all target compounds. The criteria employed for technical data review purposes are different than those used in the method. The laboratory must meet a minimum RRF of 0.01; however, for data review purposes, a RRF criterion of "greater than or equal to 0.05" is applied to all semi-volatile compounds. The RRF's and the average RRF were within the acceptance criteria specified in the method for all reported analytes. The %RSD's were within the acceptance criteria specified in the method for all target analytes with the exception of Di-n-butylphthalate (32.0%), Di-n-octylphthalate (30.3%) and Diethylphthalate (41.8%). The lowest point of the calibration curve was dropped for Di-n-butylphthalate, Di-n-octylphthalate, and Diethylphthalate and the %RSD were recalculated. The recalculated %RSD were within the acceptance criteria of less than 30%. Di-n-octylphthalate and Diethylphthalate were not detected in the associated samples therefore data qualification was not required. The detected results for Di-n-butylphthalate were mitigated do to the presence of Di-n-butylphthalate in the associated method blank.

#### B. Continuing Calibration

One CC dated 4/7/04 was analyzed in support of the semivolatile sample analyses reported in the data submissions. The RRF's for the CC dated 4/7/04 were within the acceptance criteria. The percent difference (%D) between the average RRF's and the CC Response Factors for the CC dated 4/7/04 were within the acceptance criteria with the exception the %D for Dinbutylphthalate and Di-n-octylphthalate. As per the National Functional Guidelines, if the %D exceeds the acceptance criteria qualify detected results for that analyte with "J" and non-detected results for that analyte with "UJ".

#### 4. BLANKS

One laboratory semivolatile method blank and an equipment blank were analyzed with this SDG. The results are summarized below.

#### Method Blank (0325SBLK)

Di-n-butylphthalate was detected at a concentration of 0.851 ppb in method blank 0322SBLK.

#### Equipment Blank (SKSWEB1009)

Di-n-butylphthalate was detected at a concentration of 0.904 ppb in the equipment blank collected on 3/22/04. The Di-n-butylphthalate result was mitigated by the presence of Di-n-butylphthalate in the associated extraction blank.

#### 5. SYSTEM MONITORING COMPOUND RECOVERY

All reported semivolatile system monitoring compounds were recovered within acceptable control limits.

#### 6. MATRIX SPIKE MATRIX SPIKE DUPLICATE (MS/MSD)

Sample SKSW511009 was submitted for MS MSD analysis. The MS/MSD percent recoveries were within the acceptance criteria with the exception of the 4-Nitorphenol. The %RPD between the MS/MSD are within the acceptance criteria. As per the National Functional Guidelines, no action is taken on MS/MSD data alone.

#### 7. INTERNAL STANDARDS PERFORMANCE

Internal standard areas and retention times were within acceptable limits for the reported semivolatile sample analyses.

#### 8. COMPOUND IDENTIFICATION

All reported semivolatile constituents were correctly identified with supporting chromatograms present in the data package.

#### 9. CONSTITUENT QUANTITATION AND REPORTED DETECTION LIMITS

Constituent quantitations were correctly calculated and reported for semivolatile constituents.

#### 10. SYSTEM PERFORMANCE

The analytical system appears to have been working well at the time of these analyses, based on the evaluation of the raw data submitted for review.

#### 11. **DOCUMENTATION**

The documentation appeared accurate and in order with the exception of the following: GCAL inadvertently left the Date Extracted off of the CLP Form 1's therefore the data validator inserted the Date Extracted on the CLP Form 1's. GCAL also inadvertently left the "B" qualifier off of the CLP Form 1's for the compound Di-n-butylphthalate therefore the data validator inserted a "B" qualifier in the "Q" column of the CLP Form 1's. The "B" qualifier indicates that the analyte was detected in the associated method blank.

#### 12. OVERALL ASSESSMENT

The results are acceptable with the validator-added qualifiers.

### DATA VALIDATION SUMMARY – SAMPLE DELIVERY GROUP 204032408 VOLATILE ORGANIC

Validation of the GC/MS volatile organics data, as prepared by Gulf Coast Analytical Laboratories (GCAL) for the samples collected from the Skinner Landfill site in March 2004, was conducted by Earth Tech using the National Functional Guidelines for Organic Data Review, (US EPA, October, 1999), as appropriate. The results were reported by GCAL under SDG 204032408.

GCAL#	Sample Description
20403240801	SKSWEB1009
20403240802	SKSW511009
20403240803	SKSW51MS1009
20403240804	SKSW51MSD1009
20403240806	SKSW521009
20403240807	SKSW531009

#### INTRODUCTION

Analyses were performed according to CLP-Organic Analysis Low Concentration OLC02.0 SOW. Results of the sample analyses are reported by the laboratory as either qualified or unqualified. Unqualified results mean that the reported values may be used without reservation. Various qualifier codes are used by the laboratory to denote specific information regarding the analytical results. The data validation process is intended to evaluate the data on a technical basis. The data package also was subjected to an internal laboratory quality review prior to submission to Earth Tech for data validation.

During the validation process, laboratory-qualified and unqualified data are verified against all available supporting documentation. Based on this evaluation, qualifier codes may be added, deleted or modified by the data user. Final results are therefore, either qualified or unqualified. Validator-qualified results are annotated with the following codes in accordance with the Functional Guidelines:

- U The constituent was analyzed for, but was not detected above the level of the associated analytical reporting limit. The associated value is either the sample quantitation limit or the sample detection limit.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ The analyte was not detected above the reported sample quantitation limit.

However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

The volatiles data validation findings and conclusions are provided in the following sections of this report:

- 1. Holding Times
- 2. GC/MS Tuning
- 3. Calibration
  - A. IC
  - B. CC
- 4. Blanks
- 5. System Monitoring Compound Recovery
- 6. MS/MSD
- 7. Laboratory Control Sample
- 8. Internal Standards Performance
- 9. Compound Identification
- 10. Constituent Quantitation and Reported Detection Limits
- 11. System Performance
- 12. Documentation
- 13. Overall Assessment

#### 1. HOLDING TIMES

All samples for Volatile Organic Compounds (VOC) analyses were analyzed within the 14-day technical holding time and the 10-day VTSR method holding time. The cooler temperature upon receipt at the laboratory was within the recommended temperature of 4°C ±/- 2°C.

#### 2. GC/MS TUNING

The samples were analyzed on two GC/MS system, identified as MSV0 and MSV2. Two bromofluorobenzene (BFB) tunes were run. The BFB tunes are acceptable.

#### 3. CALIBRATION

#### A. Initial Calibration

One IC dated 3/23/04 was analyzed on instrument MSV2 in support of the volatile sample analyses reported in the data submissions. Documentation of the IC standards is present in the data package, and RRF's as well as %RSD values were accurately reported. The criteria employed for technical data review purposes are different than those used in the method. The laboratory must meet a minimum RRF of 0.01; however, for data review purposes, a RRF criterion of "greater than or equal to 0.05" is applied to all volatile compounds. The %RSD's were within the acceptance criteria specified in the method for all target analytes. The RRF's and the average RRF for the IC dated 3/23/04 were within the acceptance criteria specified in the method for all target analytes with the exception of Acetone. As per the National Functional Guidelines, if any initial calibration RRF is less than 0.05, qualify positive results that have acceptable mass spectral identification with "J", using professional judgement, and non-detected analytes as unusable (R). It should be noted that the laboratory did meet the minimum RRF of 0.01 for all target compounds.

#### B. Continuing Calibration

One CC dated 3/23/04 was analyzed on instrument MSV2 in support of the volatile sample analyses reported in the data submissions. The percent difference (%D) between the average RRF's and the CC RF's were within the acceptance criteria for all target analytes. The CC RRF's were within the acceptance criteria specified in the method for all target analytes with the exception of Acetone. The Acetone results were previously qualified under section 3A above.

#### 4. BLANKS

One laboratory volatile method blank, storage blank, and a Equipment Blank were analyzed with this SDG. The results are summarized below.

#### MB154405

1,2-Dichlorobenzene was detected at a concentration of 0.17 ppb in the method blank analyzed on 3/24/04.

#### Storage Blank (VHBLK01)

No compounds were detected above the MDL in the storage blank analyzed on 3/24/04.

#### Trip Blank

There was no Trip Blank submitted for this sampling event.

#### Equipment Blank (SKSWEB1009)

Acetone, Methylene chloride and Toluene were detected at concentrations of 2.8 ppb, 0.47 ppb and 1.1 ppb respectively in the equipment blank collected on 3/22/04.

#### 5. SYSTEM MONITORING COMPOUND RECOVERY

All reported volatile system monitoring compounds were recovered within acceptable control limits for all samples.

#### 6. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Sample SKSW511009 was submitted for MS/MSD analysis. The MS/MSD percent recoveries and %RPD between the MS/MSD were within the acceptance criteria.

#### 7. LABORATORY CONTROL SAMPLE

A LCS was analyzed in conjunction with this SDG. Recoveries were within the control limit for all constituents.

#### 8. INTERNAL STANDARDS PERFORMANCE

Internal Standard (IS) areas and retention times were within acceptable limits for the reported volatile sample analyses.

#### 9. COMPOUND IDENTIFICATION

All reported VOCs were correctly identified with supporting chromatograms present in the data package.

#### 10. CONSTITUENT QUANTITATION AND REPORTED DETECTION LIMITS

Constituent quantitations were correctly calculated and reported for VOCs with the exception of Ethylbenzene. The Ethylbenzene standard and detected results were originally quantitated using the incorrect quantitation ion (GCAL used 106 instead of 91). GCAL corrected the mistake and re-submitted the corrected pages that were affected in the laboratory report. The overall effect had no impact in the final result for Ethylbenzene.

#### 11. SYSTEM PERFORMANCE

The analytical system appears to have been working well at the time of these analyses, based on the evaluation of the raw data.

#### 12. **DOCUMENTATION**

The documentation appeared accurate and in order with the exception of the following: GCAL inadvertently transposed the area counts and retention times for IS Chlorobenzene-d5 and 1,4-Dichlorobenzene-d4. The data validator corrected the mistake by drawing arrows to indicate the correct area counts and retention times for IS Chlorobenzene-d5 and 1,4-Dichlorobenzene-d4.

#### 13. OVERALL ASSESSMENT

The results are acceptable with the validator-added qualifiers.

## DATA VALIDATION SUMMARY - SAMPLE DELIVERY GROUP 204032408 PESTICIDES

Validation of the Gas Chromatography (GC) pesticides data, as prepared by Gulf Coast Analytical Laboratories (GCAL) for the samples collected from the Skinner Landfill site in March 2004, was conducted by Earth Tech using the National Functional Guidelines for Organic Data Review, (US EPA, October, 1999), as appropriate. The results were reported by GCAL under SDG 204032408.

GCAL#	Sample Description
20403240801	SKSWEB1009
20403240802	SKSW511009
20403240803	SKSW51 <b>MS1009</b>
20403240804	SKSW51 <b>MSD1009</b>
20403240806	SKSW521009
<b>204</b> 03240807	SKSW531009

#### INTRODUCTION

Analyses were performed according to CLP-Organic Analysis Multi-Media, Multi-Concentration OLM04.2 SOW. Results of the sample analyses are reported by the laboratory as either qualified or unqualified. Unqualified results mean that the reported values may be used without reservation. Various qualifier codes are used by the laboratory to denote specific information regarding the analytical results.

The data validation process is intended to evaluate the data on a technical basis. The data package also was subjected to an internal laboratory quality review prior to submission to Earth Tech for data validation.

During the validation process, laboratory-qualified and unqualified data are verified against all available supporting documentation. Based on this evaluation, qualifier codes may be added, deleted or modified by the data user. Final results are therefore, either qualified or unqualified. Validator-qualified results are annotated with the following codes in accordance with the Functional Guidelines:

- U The constituent was analyzed for, but was not detected above the level of the associated analytical reporting limit. The associated value is either the sample quantitation limit or the sample detection limit.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Details of the pesticide data validation findings and conclusions are provided in the following sections of this report:

- 1. Holding Times
- 2. Gas Chromatograph/Electronic Capture Detector (GC/ECD) Instrument Performance Check
- 3. IC
- 4. Calibration Verification
- 5. Blanks
- 6. Surrogate Spikes
- 7. Matrix Spike/Matrix Spike Duplicate (MS/MSD)
- 8. Pesticide Cleanup Checks
- 9. Target Compound Identification
- 10. Constituent Quantitation and Reported Detection Limits
- 11. Documentation
- 12. Overall Assessment

#### 1. HOLDING TIMES

All samples were extracted within the seven-day technical holding time and the five-day VTSR method holding time. The cooler temperature upon receipt at the laboratory was within the recommended temperature of 4°C +/- 2°C.

#### 2. GC/ECD INSTRUMENT PERFORMANCE CHECK

The Performance Evaluation Mixture (PEM) was analyzed at the correct frequency. Absolute retention times were within limits.

The percent resolution between adjacent peaks was within QC limits for the Pesticide Analyte Resolution Check.

The percent resolution between adjacent peaks as within QC limits for the Performance Evaluation Mixtures (PEM). The percent breakdown for both 4,4-DDT and Endrin in each PEM was less than 20.0% for both GC columns. The combined percent breakdown for 4,4-DDT and Endrin in each PEM was less than 30.0% for both GC columns.

#### 3. INITIAL CALIBRATION

Individual standard mixtures A and B were analyzed at the correct frequencies and concentrations. The percent resolution criterion was met for Individual standard mixtures A and B.

The Percent Relative Standard Deviation (%RSD) of the calibration factors for each of the single component pesticides was less than 20%.

The multi-component target compounds were analyzed separately on both columns at a single concentration level. Retention times were determined from a minimum of three peaks.

#### 4. CALIBRATION VERIFICATION

Absolute retention times were within appropriate time retention windows

#### 5. BLANKS

One laboratory method blank was analyzed with this SDG. The results are summarized below.

#### Method Blank 155051

No constituents were detected above the laboratory-reporting limit. This blank corresponds to all samples extracted on 3/26.04.

#### Equipment Blank SKSWEB1009

No constituents were detected above the laboratory-reporting limit in the equipment blank collected on 3/22/04.

#### 6. SURROGATE SPIKES

Decachlorobiphenyl (DCB) and tetrachloro-m-xylene (TCX) surrogate spike recoveries were within the acceptance criteria for all samples.

#### 7. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Sample SKSW511009 was submitted for MS MSD analysis. The MS/MSD percent recoveries were within the acceptance criteria. The %RPD between the MS/MSD are within the acceptance criteria.

#### 8. PESTICIDE CLEANUP CHECKS

Recoveries of all pesticides and surrogates were within 80-120% for the lot of Florisil cartridges utilized for pesticide cleanup with the exception of 4,4'-DDT (130%). There were no target compounds detected in the associated samples therefore no action was taken.

#### 9. TARGET COMPOUND IDENTIFICATION

All reported pesticide data were correctly identified with supporting chromatograms present in the data package.

#### 10. CONSTITUENT QUANTITATION AND REPORTED DETECTION LIMITS

Constituent quantitations were correctly calculated and reported for pesticide constituents.

#### 11. DOCUMENTATION

The documentation appeared accurate and in order with the exception of the following: GCAL inadvertently left the Date Extracted off of the CLP Form 1's therefore the data validator inserted the Date Extracted on the CLP Form 1's.

#### 12. OVERALL ASSESSMENT

The results are acceptable with the validator-added qualifiers.

#### REFERENCES

US EPA, 1994. National Functional Guidelines for Inorganic Data Review.

US EPA, 1999. National Functional Guidelines for Organic Data Review.



### **ANALYTICAL RESULTS**

PERFORMED BY

**GULF COAST ANALYTICAL LABORATORIES, INC.** 

Report Date 04/16/2004

**GCAL Report** 204032408

Deliver To Earth Tech 200 Vine Street Wilder, KY 41076 859-442-2300

Attn Pat Higgins

Customer Earth Tech

Project Skinner Landfill

000001

#### CASE NARRATIVE

Client: Earth Tech Report: 204032408

Gulf Coast Analytical Laboratories received and analyzed the sample(s) listed on the sample cross-reference page of this report. Receipt of the sample(s) is documented by the attached chain of custody. This applies only to the sample(s) listed in this report. No sample integrity or quality control exceptions were identified unless noted below.

#### **SEMI-VOLATILES MASS SPECTROMETRY**

The MS/MSD recoveries for 4-Nitrophenol are above the control limits.

#### SEMI-VOLATILES GAS CHROMATOGRAPHY

In the Florisil check analysis, the recovery for DDT was above recovery limit, however DDT was not detected in the associated samples.

#### **METALS**

Barium, Chromium, Iron, and Nickel are flagged as estimated for samples associated with prep batch 271292 due to the fact that the percent difference between the original sample result and the serial dilution result is greater than 10. A chemical or physical interference is suspected. In the ILM04.1 - CLP Metals analysis, the MS recovery was outside the control limits for Antimony, Arsenic, Selenium, and Zinc. The LCS recovery was within control limits. This indicates the analysis is in control and the sample is affected by matrix interference. A post-digestion spike was performed on the QC sample for this batch with a recovery of 109% for Antimony, 131% for Arsenic, 64% for Selenium, and 139% for Zinc. The MS recovery is not applicable for Iron and Lead because the sample concentration is greater than four times the spike concentration. The Sample/Duplicate RPD for Arsenic, Barium, Chromium, Copper, Iron, Lead, Nickel, and Zinc was outside the control limits. The heterogeneous nature of the QC sample is believed to be responsible for this.

In the ILM04.1 - CLP Metals analysis for prep batch 271294, the MS recovery was outside the control limits for Arsenic and Selenium. The LCS recovery was within control limits. This indicates the analysis is in control and the sample is affected by matrix interference. A post-digestion spike was performed on the QC sample for this batch with a recovery of 106% for Arsenic and 94% for Selenium.

### Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with GCAL's Standard Operating Procedures.

#### Common Abbreviations Utilized in this Report

ND Indicates the result was Not Detected at the specified RDL

DO Indicates the result was Diluted Out

MI Indicates the result was subject to Matrix Interference
TNTC Indicates the result was Too Numerous To Count

SUBC Indicates the analysis was Sub-Contracted

FLD Indicates the analysis was performed in the Field

PQL Practical Quantitation Limit
MDL Method Detection Limit
RDL Reporting Detection Limit

00:00 Reported as a time equivalent to 12:00 AM

#### Reporting Flags Utilized in this Report

J Indicates an estimated value

U Indicates the compound was analyzed for but not detected

B (ORGANICS) Indicates the analyte was detected in the associated Method Blank

**B** (INORGANICS) Indicates the result is between the RDL and MDL

Sample receipt at GCAL is documented through the attached chain of custody. In accordance with ISO Guide 25 and NELAC, this report shall be reporduced only in full and with the written permission of GCAL. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with the terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

CURTIS EKKER

DATA VALIDATION MANAGER

**GCAL REPORT 204032408** 

THIS REPORT CONTAINS 43 1 PAGES.

# Report Sample Summary

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20403246801	SKSWEB1009	Water	03 22/2004 13:45	03/24/2004 09:20
20403240802	SKSW511009	V ater	03/22/2004 10:40	03/24/2004 09:20
20403240803	SKSW51MS1009	Water	03/22/2004 10:55	03/24/2004 09:20
20403240804	SKSW51MSD1009	Water	03/22/2004 11:15	03/24/2004 09:20
20403240805	SKSW51DUP1009	Water	03/22/2004 11:15	03/24/2004 09:20
20403240806	SKSW521009	Water	03/22/2004 12:30	03/24/2004 09:20
20403240807	SKSW531009	Water	03/22/2004 12:55	03/24/2004 09:20
20403240808	SKSWEB1009 (CISS)	'Water	03/22/2004 13:45	03/24/2004 09:20
20403240809	SKSW511009 (DISS)	Water	03/22/2004 10:40	03/24/2004 09:20
20403240810	SKSW51MS1009 (DISS)	₩ater	03/22/2004 10:55	03/24/2004 09:20
20403240811	SKSW51DUP1009 (DISS)	Water	03/22/2004 11:15	03/24/2004 09:20
20403240812	SKSW521009 (DISS)	Water	03/22/2004 12:30	03/24/2004 09:20
20403240813	SKSW531009 (DISS)	Water	03/22/2004 12:55	03/24/2004 09:20

### 1A VOLATILE ORGANICS ANALYSIS DATA SHEET

SAME	LE.	NO.

1 ah Name: GC	:AL Contract		, , , , , , , , , , , , , , , , , , , ,	0.122.		SKSWEB1009
		-				
Lab Code: LA0	24 Case No.:		SAS No.:		SDG No.: 2040	32408
Matrix: (soil/wate	r) Water ·					
Sample wt/vol:	25 (g/ml) mL		Lab Sample ID:	20403240	801	
Level: (low/med)			Lab File ID: 20	40324/T258	36	
	dec.		Date Collected:	03/22/04	Time:	1345
	3-624-30M ID: .53		Date Received:			
Instrument ID: N	101/0	,	Date Analyzed:		<b>T</b> !	4054
-	· · · · · · · · · · · · · · · · · · ·				<del></del>	
Soil Extract Volum	me:	( µL )	Dilution Factor:	1	Analyst:	RJO
Soil Aliquot Volun	me:(	(μL)	Prep Batch:		Analytic	al Batch: 271209
CONCENTRAT	TON UNITS: ug/L		Analytical Metho	d: OLCO	2.1	
CAS NO.	COMPOUND		RESULT	Q Q	MDL	RL
			<del> </del>	<u> </u>		· · · · · · · · · · · · · · · · · · ·
71-55-6	1,1,1-Trichloroethane		1.0	U	0.010	1.0
79-34-5	1,1,2,2-Tetrachloroethane		1.0	U	0.010	1.0
79-00-5	1,1,2-Trichloroethane		1.0	U	0.010	1.0
75-34-3	1,1-Dichloroethane		1.0	U	0.010	1.0
75-35-4	1,1-Dichloroethene		1.0	U	0.010	1.0
120-82-1	1,2,4-Trichlorobenzene		1.0	U	0.010	1.0
106-93-4	1,2-Dibromoethane		1.0	U	0.010	1.0
95-50-1	1,2-Dichlorobenzene		1.0	U	0.010	1.0
107-06-2	1,2-Dichloroethane		1.0	U	0.010	1.0
540-59-0	1,2-Dichloroethene		1.0	U	0.010	1.0
78-87-5	1,2-Dichloropropane		1.0	U	0.010	1.0
541-73-1	1,3-Dichlorobenzene		1.0	U	0.010	1.0
106-46-7	1,4-Dichlorobenzene		1.0	U	0.010	1.0
78-93-3	2-Butanone		5.0	U	0.010	5.0
591-78-6	2-Hexanone		5.0	U	0.010	5.0
108-10-1	4-Methyl-2-pentanone		5.0	U	0.010	5.0
67-64-1	Acetone		2.8	J	0.010	5.0
71-43-2	Benzene		1.0	U	0.010	1.0
75-27-4	Bromodichloromethane		1.0	U	0.010	1.0
75-25-2	Bromoform		1.0	U	0.010	1.0
74-83-9	Bromomethane		1.0	U	0.010	1.0
75-15-0	Carbon disulfide				0.010	1.0
56-23-5 108-90-7	Carbon tetrachloride Chlorobenzene		1.0	U	0.010	1.0
75-00-3			1.0	U	0.010	1.0
67-66-3	Chloroethane		1.0	U	0.010	1.0
74-87-3	Chloroform		1.0		0.010	
124-48-1	Chloromethane Dibromochloromethane		1.0	U	0.010 0.010	1.0
10061-01-5	cis-1,3-Dichloropropene		1.0	U	0.010	1.0
10061-01-5	trans-1,3-Dichloropropene		1.0	U	0.010	1.0
100-41-4	Ethylbenzene		1.0	· U	0.010	1.0
75-09-2	Methylene chloride		0.47	<del>- J</del>	0.010	2.0
100.42-5	Styrene		10	11	0.010	1.0

### • 4

	4.0	MATHE OBCANO	14 Colonia de Carta	CLICET		SAMPLE NO.
Lab Name:		Contract	OS ANALYSIS DATA	SMEE!		SKSWEB1009
Lab Code: L	A024 Case No	<del></del>	SAS No :	st	OG No.: 204	032408
Matric (soil/w	ater) Water					
Sample wt/vol	t <u>25 (gπ.) mL</u>		Lab Sample ID:	20403240801	····	<del></del>
Level: (low/m	ed)		Lab File ID: 20	40324/T2 <b>58</b> 6		
% Moisture: n	ot dec	<del></del>	Date Collected:	03/22/04	Time:	1345
GC Column:	D8-624-30M IO:	_53(mm)	Date Received:	03/24/04		
nstrument ID:	MSV2	<u> </u>	Date Analyzed:	03/24/04	Time:	1851
Soil Extract V	olume:	(µL)	Dilution Factor:	1	Analysi	RJO
Soil Aliquot Volume: (µL)		Prep Batch.		Analytic	Analytical Batch: 271209	
CONCENTR	PATION UNITS: Ug/L		Analytical Metho	d: <u>OLCO 2.1</u>		
CAS NO.	COMPOUND		RESULT	Q	MDL	RL
127-18-4	Tetrachiorcethene	<del></del>	.0	U	0.010	1.0
106-88-3	Toluene		• •		0.010	1.0
79-01-6	Trichloroethene		1.0	U	0.010	1.0
75-01-4	Vinyl chlorde			Ü	0.010	1.0
1330-20-7	Xylene (tota :			U	0.010	1.0

Contract:

Case No.:

\_\_\_\_\_ (μL)

Sample wt/vol: Units:

GC Column: DB-624-30M ID: .25 (mm)

Soil Extract Volume: ( µL )

**COMPOUND** 

No tics detected

Lab Name: GCAL Lab Code: LA024

Matrix: Water

Level: (low/med)

% Moisture: not dec.

Instrument ID: MSV2

Soil Aliquot Volume:

CAS NO.

Number TICs Found: 0 **CONCENTRATION UNITS:** 

#### **VOLATILE ORGANICS ANALYSIS DATA SHEET** TENTATIVELY IDENTIFIED COM

SAS No.:

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WALISIS DATAS	ILECI	SAMPLE NO.				
FIED COMPOUN	IDS	SKSWEB1009				
AS No.:		SDG No.:	2040	32408	_	
Lab Sample ID:	2040324080	)1				
Lab File ID:						
Date Collected:	03/22/04	Tim	ie: <u>1</u>	345		
Date Received:	03/24/04					
Date Analyzed:	03/24/04	Tim	ie: <u>1</u>	851		
Dilution Factor:	1	Ana	lyst:	RSP		

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### VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE	NO.
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Lab Name: G	CAL Contract:			<u> </u>	SKSW511009
	024   Case No.	548 No		 SDG No.: 20403	32408
			·		
-	25 (gmi) mL	Lab Samble ID:	2040324080	12	
		Lab File ID. 20	<del></del>		
	0		·	<del></del>	
% Maisture: not	dec.	Date Collected:	03/22/04	Time: _1	040
GC Column: D	<b>08-624-30M</b> ID: 53 (mm)	Date Received:	03/24/04		
instrument ID:	MSV2	Date Analyzed:	03/24/04	Time: 1	541
Coll Friend Vol		Ciliation Factor	1 Analyst RJO		
	ume:(uic				<del></del>
Sail Aliquat Valu	ume: ( µL	Prep Batch.		Analytica	Batch: 271209
CONCENTRA	ITION UNITS 494	Analytical Metho	d: OLCO 2.1	<u>!</u>	
CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-55-6	1,1,1-Trichlorgethane		<del>1 u 1</del>	0.010	T 1.0
79-34-5	1.1.2.2-Terractioroethane		<del>                                     </del>	0.010	1.0
79-00-5	1.1.2-Trichiorpemane	1,5	l <del>u</del> l	0.010	1.0
75-34-3	1,1-Dictione nane		U	0.010	1.0
75-35-4	1,1-Dichlorpemene	- 2	U	0.010	1.0
120-82-1	1,2,4-Trich grobenzene	* 5	U	0.010	1.0
106-93-4	1,2-Dibromoethane	<del> </del>	U	0.010	1.0
95-50-1	1,2-Dichiorobenzene	1 .:	U	0.010	1.0
107-06-2	1,2-Dichloroethane		U	0.010	1.0
540-59-0	1,2-Dichlorpethene	<del></del>	U	0.010	1.0
78-87-5	1,2-Dichloropropane	- 0	U	0.010	1.0
541-73-1	1,3-Dichloropenzene	·ť	U	0.010	1.0
106-46-7	1,4-Dichlorocenzene	- (	U	0.010	1.0
78-93-3	2-Butanone	5 (	Ų	0.010	5.0
591-78-6	2-Hexanone	Ē (	U	0.010	5.0
106-10-1	4-Methyl-2-pentanone	5.0	U	0.010	5.0
<b>67-64-</b> 1	Acetone	5.0	U	0.010	5.0
71-43-2	Benzene	• :	IJ	0.010	1.0
75-27-4	Bromodichioromethane		U	0.010	1.0
75-25-2	Bramaform	1.0	U	0.010	1.0
74-83-9	Bromomethane	10	IJ	0.010	1.0
75-15-0	Carbon distrifide	1.5	J	0.010	1.0
56-23-5	Carbon tetractionde	1.5	U	0.010	1.0
108-90-7	Chlorobenzene	• ;	Ü	0.010	1.0
75-00-3	Chloroethane	10	U	0.010	1.0
67-66-3	Chloroform	1.5	υ	0.010	1.0
74-87-3	Chloromethane	1:	υ	0.010	1.0
124-48-1	Dibromochipromethane	1 (	U	0.010	1.0
10061-02-6	trans-1,3-0-ch-propropene	1.3	U	0.010	1.0
10061-01-5	cis-1,3-Dict-oropropene	1.3	IJ	0.010	1.0
100-41-4	Ethylbenzene	• 5	IJ	0.010	1.0
75-09-2	Methylene shance	2.0	U	0.010	2.0
100 42 E	Chance			0.010	1.0

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### 1A VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMELE NO.	SAMPLE NO.	
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				ļ	SKSW511009
Lab Name: GCAL Contra	act:			1	
Lab Code: LA024 Case No.:		SAS No.:		SDG No.: 204	032408
Matrix: (soil/water) Water					
Sample wt/vol: 25 (g/ml) mL		Lab Sample ID:	204032408	02	
Level: (low/med)		Lab File ID: 20	40324/T2579		
% Moisture: not dec.		Date Collected:	03/22/04	Time:	1040
GC Column: DB-624-30M ID: .53	_ (mm)	Date Received:	03/24/04		
Instrument ID: MSV2		Date Analyzed:	03/24/04	Time:	1541
Soil Extract Volume:	Dilution Factor:	1	Analys	t: RJO	
Soil Aliquot Volume:	Prep Batch:		Analyti	cal Batch: 271209	
CONCENTRATION UNITS: ug/L		Analytical Metho	d: OLCO 2.	1	
CAS NO. COMPOUND		RESULT	Q	MDL	RL
127-18-4 Tetrachloroethene		1.0	U	0.010	1.0
108-88-3 Toluene		1.0	U	0.010	1.0
79-01-6 Trichloroethene		1.0	U	0.010	1.0
75-01-4 Vinyl chloride		1.0	U	0.010	1.0
1330-20-7 Xylene (total)		1.0	U	0.010	1.0



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### VOLATILE ORGANIOS ANALYS SIGATA SHEET TENTATIVES Y DEUTSED COMPOSINOS

SAMPLE NO.	
SKSW511009	

ENT	ATTABLY DE	M PIED COMPOON	ID2	S	CSW511009
Lab Name: GCAL	Contract				
Lab Code: LA024 Case No.		SAS No		SDG No.: 2	04032408
Matrix: Water		Lab Sample ID:	2040324080	2	
Sample wilvoit: Units		Lab File D			
Level: (lowfmed)		Date Collected:	03/22/04	Time:	1040
% Moisture: not dec.		Date Received:	03/24/04		
GC Column: DB-624-30M ID: _25	(mm)	Date Analyzed:	03/24/04	Time:	1541
Instrument ID: MSV2		Dilution Factor:	1	Analy:	st: RSP
Soil Extract Volume:	(µL)				
Sall Aliquot Volume:	(µL)				
Number TICs Found: 0					
CONCENTRATION UNITS					
CAS NO. COMPOUND		RT	EST.	CONC.	Q
1. No tics detected					

#### 1A VOLATILE ORGANICS ANALYSIS DATA SHEET

SAM	17LE	NO.

Lab Name: G	CAL Contract:			i i	5K5W521009
	024 Case No.:				
Matrix: (soil/wate					
	25 (g/ml) mL	 Lab Sample ID:	20403240	806	
	)				
	dec.				1220
		<del></del>			1230
GC Column: D	B-624-30M ID: <u>.53</u> (mm	Date Received:	03/24/04		
Instrument ID:	MSV2	Date Analyzed:	03/24/04	Time:	1801
Soil Extract Volu	ıme: (μL	) Dilution Factor:	1	Analyst:	RJO
	me: ( µL				al Batch: 271209
		Analytical Metho			
CONCENTRA	TION UNITS: ug/L	•	<del></del>		
CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.010	1.0
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.010	1.0
79-00-5	1,1,2-Trichloroethane	1.0	U	0.010	1.0
75-34-3	1,1-Dichloroethane	1.0	U	0.010	1.0
75-35-4	1,1-Dichloroethene	1.0	U	0.010	1.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.010	1.0
106-93-4	1,2-Dibromoethane	1.0	U	0.010	1.0
95-50-1	1,2-Dichlorobenzene	1.0	U	0.010	1.0
107-06-2	1,2-Dichloroethane	1.0	Ü	0.010	1.0
540-59-0	1,2-Dichloroethene	1.0	U	0.010	1.0
78-87-5	1,2-Dichloropropane	1.0	U	0.010	1.0
541-73-1	1,3-Dichlorobenzene	1.0	U	0.010	1.0
106-46-7	1,4-Dichlorobenzene	1.0	U	0.010	1.0
78-93-3	2-Butanone	5.0	U	0.010	5.0
591-78-6	2-Hexanone	5.0	U	0.010	5.0
108-10-1	4-Methyl-2-pentanone	5.0	U	0.010	5.0
67-64-1	Acetone	5.0	U	0.010	5.0
71-43-2	Benzene	1.0	U	0.010	1.0
75-27-4	Bromodichloromethane	1.0	U	0.010	1.0
75-25-2	Bromoform	1.0	U	0.010	1.0
74-83-9	Bromomethane	1.0	U ·	0.010	1.0
75-15-0	Carbon disulfide	1.0	U	0.010	1.0
56-23-5	Carbon tetrachioride	1.0	Ü	0.010	1.0
108-90-7	Chlorobenzene	1.0	Ü	0.010	1.0
75-00-3	Chloroethane	1.0	U	0.010	1.0
67-66-3	Chloroform	1.0	U	0.010	1.0
74-87-3	Chloromethane	1.0	U	0.010	1.0
124-48-1	Dibromochloromethane	1.0	U	0.010	1.0
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.010	1.0
10061-02-6	trans-1,3-Dichloropropene	1.0	U	0.010	1.0
100-41-4	Ethylbenzene	1.0	U	0.010	1.0
75-09-2	Methylene chloride	2.0	U	0.010	2.0
100-42-5	Styrene	1.0	U	0.010	1.0

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	: 0	1T E 09011	int. Os analys s datai	CHEST		SAMPLE NO.
Lab Name: <u>G</u>			Jar Here a Jarx	once!	E .	SKSW521009
Lab Code: LA	024 Case No.:		S45 No.		SDG No.: _204	032408
Matrix: (soil/wal	ter) Water					
Sample wt/vol:	25 (g.ml) mL		Lab Sample ID:	2040324080	6	
Levet: (low/med	n		Lab F  ∈ D: 20	40324/T2584		
% Moisture: not	dec.	,	Date Corected:	03/22/04	Time:	1230
GC Column: _C	08-624-30M ID:	53 (mr)	Date Received:	03/24/04		
Instrument ID:	MSV2		Date Analyzed:	03/24/04	Time:	1801
Sail Edract Vol	ume:	' ان ) ' ان ا	Dilution Factor:	_1	Analys	RJO
Sall Aliquot Valu	ume:	(µL	Prep Batch		Analyti	cal Batch: 271209
CONCENTRA	ITION UNITS Ug/L		Analytical Metho	d: OLCO 2.1		
CAS NO.	COMPOUND		RESULT	Q	MDL	RL
127-18-4	Tetrachiorcemene		:::	U	0.010	1.0
108-88-3	Toluene		1.0	U	0.010	1.0
79-01-6	Trichloroethene		• :	U	0.010	1.0
75-01-4	Vinyl chloride		• :	U	0.010	1.0
1330-20-7	Xylene tota			U	0.010	1.0

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# 1E VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.	
SKSW521009	

Lab Name: GCAL	_Contract:			<u>-</u>	<del></del>
Lab Code: LA024 Case No.:		SAS No.:		SDG No.: 20	04032408
Matrix: Water		Lab Sample ID:	20403240806	<del> , , .</del>	
Sample wt/vol: Units:		Lab File ID:			
Level: (low/med)		Date Collected:	03/22/04	Time:	1230
% Moisture: not dec.		Date Received:	03/24/04		
GC Column: DB-624-30M ID: .25	(mm)	Date Analyzed:	03/24/04	Time:	1801
Instrument ID: MSV2	· · · · · · · · · · · · · · · · · · ·	Dilution Factor:	1	Analys	t: RSP
Soil Extract Volume:	(μL)				
Soil Aliquot Volume:	(µL)				
Number TICs Found: 0 CONCENTRATION UNITS: CAS NO. COMPOUND		RT	EST. (	CONC.	Q
1. No tics detected		<u> </u>	1		

### NO DLATILE DRIGANIOS ANALYSIS DATA SHEET

SA	MPL	Ε	NO

	. 52-1.2		CC PAPE CO C D - CN	J. 1221	,	SKSW531009
Lab Name: GO	<u> </u>	mract			<del></del> "	
Lab Code: LA	224 Case No		SAS No		SDG No.: 20403	2408
Matrix: (soil/wate	er) Water	<del></del> -:	_			
Sample wt/vol:	25 gml) mL		Lab Sample ID:	2040324080	7	
Levet (low/med)	<u> </u>		_ab Fie D: 20	40324/T <b>2585</b>		
% Maisture: not			. Date Collected:		Time: 1	255
		<del></del> -	•			
GC COMMIN: _D	<b>8-624-3</b> CM IC 53	— func.	Date Received:	03/24/04		
Instrument ID:	MSV2		Date 4nalyzed:	03/24/04	Time: 1	826
Soil Edract Volu	me:	المر)	Dilution Factor	1	Analyst:	RJO
Sail Aliquot Volu		(يال	Prep Batch:		Analytica	Batch: 271209
•		<del></del>	Analytica: <b>Metho</b>	# OLCO 21	<u> </u>	-
CONCENTRA	TION UNITS Ug/L		VIGITORS INCOME	- 30021	·	
CAS NO.	COMPOUND		RESULT	Q	MDL	RL
71.66.8	I 1 1 Treniemana		1 1 5	T U T	0.010	1.0
71-55-6 79-34-5	1,1,1-Trichicroethane		1.	- 5	0.010	1.0
79-00-5	1,1,2-Trichic/pethane		<del></del>	<del>  "  </del>	0.010	1.0
75-34-3	1,1-Dichloroethane		<del></del>	<del>  0</del>	0.010	1.0
75-35-4	1,1-Dichiorpetrene			l ü	0.010	1.0
120-82-1	1.24-Transportage		1	U	0.010	1.0
106-93-4				u l		1.0
95-50-1	1,2-Dibromoethane		<del></del>	U	0.010 0.010	1.0
107-06-2	1,2-Dichloropenzene 1,2-Dichloroethane		<del></del>	U	0.010	1.0
540-59-0	1,2-Dichioroethene		4 5	U	0.010	1.0
78-67-5	1,2-Dich oropropane			U	0.010	1.0
541-73-1	1,3-Dich orobenzene	<del></del>	•	U	0.010	1.0
108-46-7	1,4-Dich orobenzene	<del></del>	<del></del>	<del>- U</del>	0.010	1.0
78-93-3	2-Butanone		5.1	U	0.010	5.0
591-78-6	2-Hexanone		5 :	U	0.010	5.0
108-10-1	4-Methyl-2-pentanone		<u> </u>	U	0.010	5.0
67-64-1	Acetone		<u> </u>	U	0.010	5.0
71-43-2	Benzene			U	0.010	1.0
75-27-4	Bromocichoromethane			<del>- 0</del>	0.010	1.0
75-25-2	Bromoform			<del>U</del>	0.010	1.0
74-83-9	Bromomethane		<u>.</u>	<del>- 0</del>	0.010	1.0
75-15-0	Carbon cisurfoe		<del></del>	U	0.010	1.0
56-23-5	Carbon tetrachlonde		<del></del>	<del>- 0</del> -	0.010	1.0
108-90-7	Chlorobenzene		<del></del>	U	0.010	1.0
75-00-3	Chloroethane			<del>U</del>	0.010	1.0
67-66-3	Chloroform		<del></del>	<del>- U</del>	0.010	1.0
74-87-3	Chloromethane		<del></del>	U	0.010	1.0
124-48-1	Dibromoct-promethane		<del>:</del>	U	0.010	1.0
10061-01-5	cis-1,3-Dicticropropene		<del></del>	U	0.010	1.0
10061-02-6	trans-1,3-2 chloropropene		<del></del>	U	0.010	1.0
100-41-4	Ethylbenzene			U	0.010	1.0
75-09-2	Methylene chlonde		20	U U	0.010	2.0
100-42-5	Styrene		• :	<del>- U</del>	0.010	1.0
	wyrere.		<b>L</b>	<del>.</del>	U.U IU	1.0

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### 1A

		SAMPLE NO.				
Lab Name: _G	CAL Co	ntract:				SKSW531009
Lab Code: LA	.024 Case No.:		SAS No.:		SDG No.: 20403	32408
Matrix: (soil/wal	ter) Water					
Sample wt/vol:	25 (g/ml) mL		Lab Sample ID:	2040324080	)7	· · · · · · · · · · · · · · · · · · ·
Level: (low/med	)		Lab File ID: 20	40324/T2585		
	t dec.			03/22/04	Time: _	255
GC Column: _E	DB-624-30M ID: .53	(mm)	Date Received:	03/24/04	·	
Instrument ID:	MSV2		Date Analyzed:	03/24/04	Time: _1	826
Soil Extract Vol	ume:	(µL)	Dilution Factor:	1	Analyst:	RJO
Soil Aliquot Volu	ume:	(µL)	Prep Batch:	<del></del>	Analytica	Batch: 271209
CONCENTRA	TION UNITS: ug/L		Analytical Metho	d: OLCO 2.1	<u> </u>	
CAS NO.	COMPOUND		RESULT	Q	MDL	RL
127-18-4	Tetrachloroethene		1.0	U	0.010	1.0
108-88-3	Toluene		1.0	U	0.010	1.0
7 <del>9-</del> 01-6	Trichloroethene		1.0	U	0.010	1.0
75-01-4	Vinyl chloride		1.0	U	0.010	1.0
1330-20-7	Xylene (total)		1.0	U	0.010	1.0

#### ·Ε VOLATILE ORGANICS ANALYSIS DAT TENTATIVELY IDENTIFIED COMPO

F# SHEET DUNDS		SAMPL	E NO. SW531009
		SDG No.: 204	032408
ID:	204032406	307	
ed:	03/22/04	Tirne:	1255
ed:	03/24/04		
ed:	03/24/04	Time:	1826
or.	1	Analyst	RSP

### 1B SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL	Sample ID: SKSWEB1009
Lab Code: LA024 Case No.:	Contract:
SAS No.: SDG No.: 204032408	Lab File ID: 2040407P/S5094
Matrix: Water	Lab Sample ID: 20403240801
Sample wt/vol: 1000 Units: mL	Date Collected: 03/22/04 Time: 1345
Level: (low/med)	Date Received: 03/24/04
% Moisture: decanted: (Y/N)	Date Extracted: 3/25/24
	Date Analyzed: 04/07/04 Time: 1838
GC Column: DB-5MS-30M ID: .25 (mm)	
Concentrated Extract Volume: 1000 ( µL )	Dilution Factor: 1 Analyst: RLW
Injection Volume: 1.0 ( µL )	Prep Method:
GPC Cleanup: (Y/N) N pH:	Analytical Method: OLMO 4.2
	Instrument ID: MSSV2
CONCENTRATION UNITS: ug/L	Prep Batch: 271238 Analytical Batch: 271976
CAS NO. COMPOUND	RESULT Q MDL PQL
95-95-4 [2,4,5-Trichlorophenol	10.0 U 0.010 10.0
88-06-2 [2,4,6-Trichlorophenol	10.0 U 0.010 10.0
120-83-2 2,4-Dichlorophenol	10.0 U 0.010 10.0
51-28-5 (2,4-Dinitrophenol	25.0 U 0.010 25.0
121-14-2 2,4-Dinitrotoluene	10.0 U 0.010 10.0
606-20-2 2,6-Dinitrotoluene	10.0 U 0.010 10.0
91-58-7 2-Chloronaphthalene	10.0 U 0.010 10.0
95-57-8 2-Chlorophenol	10.0 U 0.010 10.0
91-57-6 2-Methylnaphthalene	10.0 U 0.010 10.0
88-74-4 2-Nitroaniline	25.0 U 0.010 25.0
88-75-5 2-Nitrophenol	10.0 U 0.010 10.0
91-94-1 3,3'-Dichlorobenzidine	10.0 U 0.010 10.0
99-09-2 3-Nitroaniline	25.0 U 0.010 25.0
534-52-1 2-Methyl-4,6-dinitrophenol	25.0 U 0.010 25.0
59-50-7 4-Chloro-3-methylphenol	10.0 U 0.010 10.0
106-47-8 4-Chloroaniline	10.0 U 0.010 10.0
7005-72-3 4-Chlorophenyl-phenylether	10.0 U 0.010 10.0
106-44-5 4-Methylphenol (p-Cresol)	10.0 U 0.010 10.0
83-32-9 Acenaphthene	10.0 U 0.010 10.0
208-96-8 Acenaphthylene	10.0 U 0.010 10.0
120-12-7 Anthracene	10.0 U 0.010 10.0
56-55-3 Benzo(a)anthracene	10.0 U 0.010 10.0
50-32-8 Benzo(a)pyrene	10.0 U 0.010 10.0
205-99-2 Benzo(b)fluoranthene	10.0 U 0.010 10.0
191-24-2 Benzo(g,h,i)perylene	10.0 U 0.010 10.0
207-08-9 Benzo(k)fluoranthene	10.0 U 0.010 10.0
111-91-1 Bis(2-Chloroethoxy)methane	10.0 U 0.010 10.0
111-44-4 Bis(2-Chloroethyl)ether	10.0 U 0.010 10.0
108-60-1 bis(2-Chloroisopropyl)ether	10.0 U 0.010 10.0

5/241 My

#### SEMEVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name:	GCAL	Sample D:	SKSWEB10	09			
Lab Code: L	.A024 Case No.:	Contract					
SAS No.:	SOG No.: 204032408	LabFile ID _	2040407P/S	5094	<del></del>		
Matrix Wat	er .	Lap Sample II	D: 2040324	10801			
	t: 1000 units: mL	Date Collected	1: 03/22/04	Time:	1345		
				<del></del>			
Level: (low/m		Date Received					
% Moisture:	decanted: (Y 'N)	Date Extracted	# 31.5				
GC Column:	<b>DB-5MS-30M</b> ID: 25 (mm)	Date Analyzed	i: <u>04/07/04</u>	Time:	1838		
Concentrated	Extract Volume: 1900 (µL)	Dilution Factor	r. <u>1</u>	Analy:	t: RLW		
Injection Volum	me: 13 (µL)	Prep Method:					
	c (Y/N) N pH:	Analytical <b>Met</b>	hod: OLM	042			
		instrument D:	MSSV2			<del></del>	
CONCENTRA	ITION UNITS: ug.t.	Prep Batch.		Analytical Bat	ch: 271976		
CAS NO.	COMPOUND	RESULT	Q	MDL	PQL	_	
101-55-3	4-Bromophery-phenylether	10:	U	0.010	10.0	7	
85-68-7	Butyberzylchthalate	10.0	U	0.010	10.0	7	
86-74-8	Carbazole	10.0	IJ	0.010	10.0	7	
218-01-9	Chrysene	10:	U	0.010	10.0		
84-74-2	Oi-n-butyloht alate	٢٠٠٠ عيدي	弘」	0.010	10.0	<b></b>  \(\cdot\)	
117-84-0	Di-n-octylor tratate	10:	U	0.010	10.0	⊢ū.	
53-70-3	Dibenz(a,h)anthracene	•(:	U	0.010	10.0	┥"	
132-64-9	Oibenzolura:	10 :	U	0.010	10.0	-	
84-66-2	Diethylphtha ate	• ; ;	U	0.010	10.0	<b>-</b>	
131-11-3	Dimethyl-phthalate	10.0	Ŭ	0.010	10.0	_	
105-67-9	2,4-Dimethytonenoi	•::	U	0.010	10.0	_	
206-44-0	Fluoranthene	•0.0	Ü	0.010	10.0	_	
86-73-7	Fluorene	10.0	U	0.010	10.0	_	
118-74-1	Hexachloroberzene	•0.0	U	0.010	10.0	_	
<b>87-68-</b> 3	Hexachlorobutadiene	*C.C	U	0.010	10.0		
77-47-4	Hexachlorocyclopentadiene	÷6 5	U	0.010	10.0	_	
67-72-1	Hexachloroethane	·0 :	U	0.010	10.0	_	
193-39-5	Indeno(1.2.3-cd)cyrene	10.0	U	0.010	10.0	_	
78-59-1	Isophorone	*0 C	υ	0.010	10.0	_	
91-20-3	Naphthalene	10 C	Ü	0.010	10.0	7	
100-01-6	4-Nitroamhne	25 :	U	0.010	25.0	-	
98-95-3	Nitrobenzene	-::	Ü	0.010	10.0	_	
100-02-7	4-Nitrophenal	25 :	Ü	0.010	25.0		
87-86-5	Pentachioropheno	25 0	U	0.010	25.0	_	
85-01-8	Phenanthrene	10.0	<del>-</del>	0.010	10.0	_	
108-95-2	Phenol	10.0	U	0.010	10.0	-	
129-00-0	Pyrene		<del>U</del>	0.010	10.0		
621-64-7	N-Nitroso-di-n-progytamine	13.5	<del></del>	0.010	10.0	_	
86-30-6	N-Nitrosodichen iamine	*3.0	<del></del> U	0.010	10.0	-	
95-48-7	o-Cresol	***	13	0.010	10.0	_	

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#### 1F SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: GCAL	Sample ID: SKSWEB1009
Lab Code: LA024 2 Case No.:	Contract:
SAS No.: SDG No.: 204032408	Lab File ID: S5094
Matrix: Water	Lab Sample ID: 20403240801
Sample wt/vol: Units:	Date Collected: 03/22/04 Time: 1345
Level: (low/med)	Date Received: 03/24/04
% Moisture: not dec.	Date Extracted: '3\25\ > 4
GC Column: ID: (mm)	Date Analyzed: 04/07/04 Time: 1838
Concentrated Extract Volume: 1000 (µL)	Dilution Factor: 1 Analyst: RLW
Injection Volume: 1.0 (µL)	Prep Method:
GPC Cleanup: (Y/N) N pH:	Analytical Method: SW-846 8270C Instrument ID: MSSV2
Number TICs Found: 0 CONCENTRATION UNITS:	
CAS NO. COMPOUND	RT EST. CONC. Q
1. No tics deteced	

5/26/04

### 18 SEMIVOLATILE ORGANIOS ANALMSIS SATA SHEET

Lab Name: GCAL	Sample ID SKS	SW511009		
Lab Code: LA024 Case No.:	Contract:			
SAS No.: SDG No.: 204032408	Lab File ID: 204	0407P/S509	5	_
Matrix Water	Lab Sample ID:	2040324080	2	
Sample withol: 1000 Units mL	Date Collected:	03/22/04	Time: 10	040
Level: (fourmed)	Date Received:	03/24/04		
% Moisture: decanted: (Y/N)	Date Extracted:	3/25/=	4	
GC Column: D8-5MS-30M ID: 25 (mm)	Date Analyzed:	04/07/04	Time: 1	905
Concentrated Extract Volume: 1000 ( µL )	Dilution Factor:	1	Analyst:	RLW
Injection Volume: 1.0 (µL)	Prep Method:		<del></del>	
	Analytical Method		·	
GPC Cleanup: (Y/N) N pH:	nstrument ID: N			<del></del>
CONCENTRATION UNITS: ug/L	_		Apply Seed David	274076
ALC NO COMPOUND	Prep Batch: 27 RESULT			
CAS NO. COMPOUND		Q 	MDL 0.010	PQL
<b>95-95-4</b> 2.4.5-Trichlorophenal	10 0	Ü		10.0
88-06-2 2,4,6-Trichlorconenal	10.0	U	0.010	10.0
120-83-2 2,4-Dichlorophenol	10.3	<u> </u>	0.010	10.0
51-28-5 2,4-Dinitropheno:	25 3	U	0.010	25.0
121-14-2 2,4-Dinstrotok-ene	10.0	U	0.010	10.0
<b>606-20-2</b> 2,6-Dinitrotatuene	°C 0	U	0.010	10.0
91-58-7 2-Chloronachtralene	د ه٠	U	0.010	10.0
95-57-8 2-Chloropheno	1C 0	U	0.010	10.0
91-57-6 2-Methylnaphthalene	*C C	<u> </u>	0.010	10.0
88-74-4 2-Nitroanline	25.7	U	0.010	25.0
88-75-5 2-Nitropheno:	*C :	U	0.010	10.0
91-94-1 3,3'-Dichlorobenzidine	<b>*€</b> 3	U	0.010	10.0
99-09-2 3-Nitroaniine	25.0	U	0.010	25.0
534-52-1 2-Methyl-4 5-dinstropmenol	25.0	U	0.010	25.0
59-50-7 4-Chioro-3-methy:phenoi	10.0	Ú	0.010	10.0
108-47-8 4-Chloroansine	10.0	Ü	0.010	10.0
7005-72-3 4-Chlorophery-phenylether	10.0	บ	0.010	10.0
106-44-5 4-Mathylphenoi (p-Cresoi)	10 t	Ú	0.010	10.0
83-32-9 Acenaphthene	*C I	Ū	0.010	10.0
208-96-8 Acensphittivene	•6.5	U	0.010	10.0
120-12-7 Anthracere	10.0	U	0.010	10.0
56-55-3 Benzo(a)anthracene	•: c	U	0.010	10.0
50-32-6 Benzo(alpyrene	100	U	0.010	10.0
205-99-2 Benzola fluoranthene	100	Ü	0.010	10.0
191-24-2 Benzolg.h :cerytene	•0 f	U	0.010	10.0
207-06-9 Benzoik Muoranthene	•:::::	U	0.010	10.0
111-91-1 Bis(2-Chiorpethoxy)methane	10.0	U	0.010	10.0
111-44-4 Bis(2-Chloroethy )ether	•2.5	U	0.010	10.0
108-60-1 bis(2-Chiraraisopropyl)ether	13.0	Ū	0.010	10.0
117-81-7 bis(2-ethylherytionthalate	12:	บ	0.010	10.0

### 1B SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: GO	CAL	Sample ID:	SKSW5110	009		
Lab Code: LAC	024	Contract:		****		
SAS No.:	SDG No.: 204032408	Lab File ID:	2040407P/	S5095	···	
Matrix: Water		Lab Sample I	D: 204032	40802		
Sample wt/vol:	1000 Units: mL	Date Collecte	d: 03/22/0	)4 Time	: 1040	
		Date Receive	d: 03/24/0	14		_
	decanted: (Y/N)	Date Extracte	ed: 312	5104	·····	
•	B-5MS-30M ID: .25 (mm)	Date Analyze	d: 04/07/0	4 Time	e: 1905	
	ctract Volume: 1000 (µL)			Ana	lyst: RLW	
		Prep Method:		· · · · · · · · · · · · · · · · · · ·		
	: <u>1.0</u> (μL)	Analytical Me		1O 4 2		
GPC Cleanup: (1	Y/N) N pH:	-		10 4.2	<del></del>	_
CONCENTRATI	ON UNITS: ug/L	Instrument ID				_
		Prep Batch:			atch: 271976	
CAS NO.	COMPOUND	RESULT	Q	MDL	PQL	
101-55-3	4-Bromophenyl-phenylether	10.0	U	0.010	10.0	_
85-68-7	Butylbenzylphthalate	10.0	U	0.010	10.0	4
86-74-8	Carbazole	10.0	U	0.010	10.0	4
218-01-9	Chrysene	10.0	U	0.010	10.0	س, راب
84-74-2	Di-n-butylphthalate	10.0	U	0.010	10.0	Ju
117-84-0	Di-n-octylphthalate	10.0	U	0.010	10.0	่⊒นว
53-70-3	Dibenz(a,h)anthracene	10.0	U	0.010	10.0	
132-64-9	Dibenzofuran	10.0	U	0.010	10.0	_
<del>84-66-2</del>	Diethylphthalate	10.0	U	0.010	10.0	_
131-11-3	Dimethyl-phthalate	10.0	U	0.010	10.0	_
105-67-9	2,4-Dimethylphenol	10.0	U	0.010	10.0	
206-44-0	Fluoranthene	0.849	J	0.010	10.0	
86-73-7	Fluorene	10.0	U	0.010	10.0	_
118-74-1	Hexachlorobenzene	10.0	U	0.010	10.0	_
87-68-3	Hexachlorobutadiene	10.0	U ·	0.010	10.0	_
77-47-4	Hexachlorocyclopentadiene	10.0	U	0.010	10.0	_
67-72-1	Hexachloroethane	10.0	U	0.010	10.0	_
193-39-5	Indeno(1,2,3-cd)pyrene	10.0	U	0.010	10.0	_
78-59-1	Isophorone	10.0	U	0.010	10.0	_
91-20-3	Naphthalene	10.0	U	0.010	10.0	_
100-01-6	4-Nitroaniline	25.0	U	0.010	25.0	_
98-95-3	Nitrobenzene	10.0	U	0.010	10.0	_
100-02-7	4-Nitrophenol	25.0	U	0.010	25.0	_
87-86-5	Pentachlorophenol	25.0	U	0.010	25.0	
35-01-8	Phenanthrene	0.794	J	0.010	10.0	_
108-95-2	Phenol	10.0	U	0.010	10.0	_
129-00-0	Pyrene	0.679	J	0.010	10.0	_]
	N-Nitroso-di-n-propylamine	10.0	Ü	0.010	10.0	_
	N-Nitrosodiphenylamine	10.0	U	0.010	10.0	_
35_48-7	n-Cresol	10.0	- 11	0.010	10.0	1

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### SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY DENTIFIED COMPOUNDS

Lab Name: GCAL	Sample D: <b>SKSW511009</b>
Lab Code: LA024 2 Case No.:	Contract
SAS No.: 50G No.: 204032408	Lat File (D) S5095
Matrix Water	Lab Sample ID: 20403240802
Sample wt/vol: Units:	Date Collected: 03/22/04 Time: 1040
Level: (low/med)	Date Received: 03/24/04
% Moisture: not dec.	Date Extracted: 31251-4
GC Column: ID: (mm)	Date Analyzed: 04/07/04 Time: 1905
Concentrated Extract Volume: 1000 (µL)	Dilution Factor: 1 Analyst: RLW
Injection Volume: 10 (µc /	Prep Method:
GPC Cleanup: (Y/N) N pH:	Analytica Method: SW-846 8270C
	Instrument ID: MSSV2
Number TICs Found: 0	
CONCENTRATION UNITS	
CAS NO. COMPOUND	RT EST. CONC. Q
1. No tics deteced	

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#### 1B SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: GC	CAL	Sample ID: SKSW521009			
Lab Code: LAC	024 Case No.:	Contract:			
SAS No.:	SDG No.: 204032408	•		5098	
Matrix: Water		Lab Sample ID:	2040324	0806	
Sample wt/vol:	1000 Units: mL	Date Collected:	03/22/04	Time:	1230
Level: (low/med)		Date Received:			
	decanted: (Y/N)	Date Extracted:			
					2025
GC Column: D	B-5MS-30M ID: .25 (mm)	Date Analyzed:			2025
Concentrated Ex	tract Volume: 1000 (µL)	Dilution Factor:	1	Analy	st: RLW
Injection Volume	: 1.0 (μL)	Prep Method:		- · - · · · · · · · · · · · · · · · · ·	
GPC Cleanup: (	Y/N) N pH:	Analytical Metho	od: OLM	O 4.2	
G. G G.GG.,Gp. (		Instrument ID:	MSSV2		
CONCENTRATI	ON UNITS: ug/L	•			
		Prep Batch: 2	71238	Analytical Ba	tch: 271976
CAS NO.	COMPOUND	RESULT	Q	MDL	PQL
95-95-4	2,4,5-Trichlorophenol	10.0	Ü	0.010	10.0
88-06-2	2,4,6-Trichlorophenol	10.0	U	0.010	10.0
120-83-2	2,4-Dichlorophenol	10.0	Ú	0.010	10.0
51-28-5	2,4-Dinitrophenol	25.0	U	0.010	25.0
121-14-2	2,4-Dinitrotoluene	10.0	U	0.010	10.0
606-20-2	2,6-Dinitrotoluene	10.0	U	0.010	10.0
91-58-7	2-Chloronaphthalene	10.0	U	0.010	10.0
95-57-8	2-Chlorophenol	10.0	U	0.010	10.0
91-57-6	2-Methylnaphthalene	10.0	<u> </u>	0.010	10.0
88-74-4	2-Nitroaniline	25.0	<u> </u>	0.010	25.0
88-75-5	2-Nitrophenol	10.0	U	0.010	10.0
91-94-1	3,3'-Dichlorobenzidine	10.0	U	0.010	10.0
99-09-2	3-Nitroaniline	25.0	U	0.010	25.0
534-52-1	2-Methyl-4,6-dinitrophenol	25.0	U	0.010	25.0
59-50-7	4-Chloro-3-methylphenol	10.0	U	0.010	10.0
106-47-8	4-Chloroaniline	10.0	U	0.010	10.0
7005-72-3	4-Chlorophenyl-phenylether	10.0	U	0.010	10.0
106-44-5	4-Methylphenol (p-Cresol)	10.0	U	0.010	10.0
83-32-9	Acenaphthene	10.0	Ü	0.010	10.0
2:08-96-8	Acenaphthylene	10.0	U	0.010	10.0
120-12-7	Anthracene	10.0	U	0.010	10.0
56-55-3	Benzo(a)anthracene	10.0	U	0.010	10.0
50-32-8	Benzo(a)pyrene	10.0	U	0.010	10.0
205-99-2 191-24-2	Benzo(b)fluoranthene	10.0	U	0.010	10.0
	Benzo(g,h,i)perylene	10.0	U	0.010	10.0
207-08-9 111-91-1	Benzo(k)fluoranthene	10.0	U	0.010	10.0
111-91-1	Bis(2-Chloroethoxy)methane	10.0	U	0.010	10.0
108-60-1	Bis(2-Chloroethyl)ether	10.0	U	0.010	10.0
117-81-7	bis(2-Chloroisopropyl)ether bis(2-ethylhexyl)phthalate	10.0	<del>- U</del> -	0.010	10.0
1 1 1 -0 1 - 1	posta-cutymoxyryomutatate	1 10.0	· ·	0.010	10.0

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## 18 SEMINOLATILE ORGANIS ANALISIS DATA SHEET

Lab Name: GCAL	Sample D:	SK <b>SW5210</b>	9		
Lab Code: LA024 Case No	Commant:				_
SAS No.: SDG No : _204632408	Lab Fie D:	20 <b>40407P/S</b>	5098		•
Matrix: Water	_at Sample (	D: 2040324	10806	<del></del>	
	Tata Callacter		Time:	1220	
Sample w/voit 1000 units: mt.	Date pullecter	g: <u>03/22/04</u>	i inte:	1230	
Level: (low/med)	Date Received				_
% Molisture: decanted: (Y N)	Date Extracted	o <u>3125</u>	1:4	· · · · · · · · · · · · · · · · · · ·	_
GC Column: D8-5MS-30M	m) Date Analyzed	d: <u>94/07/04</u>	Time:	2025	
Concentrated Extract Volume 1000 19	Diution Facto	c <u>1</u>	Analy	st: RLW	_
Injection Volume: 12 f μ					_
	Anarytica: Met	hod: OLM	0 4.2		_
GPC Cleanup: (Y/N) N pH	instrument D:		·		_
CONCENTRATION UNITS91.	Prep Batch:		Analytical Bar	teh: 271076	_
CARNO COMPOUND					
CAS NO. COMPOUND	RESULT	Q	<b>MDL</b> 0.010	PQL 10.0	7
101-55-3 4-Bromophen (-ohenylether 85-68-7 Butylbenzylehma ate	•::	U	0.010	10.0	-{
	10,5	U	0.010	10.0	-
	19.0	U U	0.010	10.0	-
218-01-9 Chrysene 84-74-2 Di-n-butylonthalate	10.30-	31	0.010	10.0	انا
	10.00	0 2		10.0	45
117-84-0 Di-n-octytontma.ate	<del></del>	U	0.010	10.0	۷ ا
53-70-3 Oiberz(a,h)anthracene		<u> </u>	0.010	10.0	-
132-64-9 Dibenzofurar 84-66-2 Diethylphthæate	<del></del>	<del>- U</del>	0.010	10.0	_
		<del>-                                    </del>	0.010	10.0	_
	10.0	<del>- 5</del>		10.0	
105-67-9 2,4-Dimetry one ra	10.0		0.010		
206-44-0 Fluoranthere	- C C	<u> </u>	0.010	10.0	-
86-73-7 Fluorene	· · · · · · · · · · · · · · · · · · ·	<del></del>	0.010	10.0	
118-74-1 Hexachlorobenzene	• •	<u> </u>	0.010	10.0	-
87-68-3 Hexachlorobutatione	10.0	<u> </u>	0.010	10.0	_
77-47-4 Hexachlorocyc coentadiene	*( :	U	0.010	10.0	4
67-72-1 Hexachloroethane	·( :	<u> </u>	0.010	10.0	4
193-39-5 Indeno(1,2,3-cd ovrene	*5.5	Ü	0.010	10.0	4
78-59-1 Isophorone	.: :		0.010	10.0	4
91-20-3 Naphthalene	10.0	<u> </u>	0.010	10.0	_
100-01-6 4-Nitroaniine	25 0	ن	0.010	25.0	
98-95-3 Nitrobenzene	*::	J	0.010	10.0	
100-02-7 4-Nitrophena	25 0	<u> </u>	0.010	25.0	_
87-88-5 Pentachlorecheno	25.5	U	0.010	25.0	
85-01-8 Phenanthrene	- 3.0	U	0.010	10.0	_
108-95-2 Phenoi	.3 0	U	0.010	10.0	_
129-00-0 Pyrene	*) (	IJ	0.010	10.0	_
621-64-7 N-Nitroso-di-n-propylamine	.3.0	Ų	0.010	10.0	_
85-30-6 N-Nitrosodonen- amine	*2.2	ij	0.010	10.0	_
95-48-7 o-Cresol			0.010	10.0	-

#### 1F SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: GCAL	Sample ID: SKSW521009
Lab Code: LA024 2 Case No.:	Contract:
SAS No.: SDG No.: 204032408	Lab File ID: S5098
Matrix: Water	Lab Sample ID: 20403240806
Sample wt/vol: Units:	Date Collected: 03/22/04 Time: 1230
Level: (low/med)	Date Received: 03/24/04
% Moisture: not dec.	Date Extracted: 3125104
	Date Analyzed: 04/07/04 Time: 2025
Concentrated Extract Volume: 1000 ( µ	L) Dilution Factor: 1 Analyst: RLW
Injection Volume: 1.0 ( μ	L) Prep Method:
GPC Cleanup: (Y/N) N pH:	Analytical Method: SW-846 8270C
Number TICs Found: 0 CONCENTRATION UNITS: CAS NO. COMPOUND	Instrument ID: MSSV2  RT EST. CONC. Q
1. No tics deteced	

5/26/04

### IB SEMIVOURTLE ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL	Sample Dr. SKSW531009				
Lab Code: LA024 Case No	Contract				
SAS No.: SDG No234032408	lab = e iC: _2	2040407P/S5	5099	_	
Matrix: Water	Lab Sample (D	2040324	0807		
Sample without 1000 Units mt.	Date Collected	03/22/04	Time: _	1255	
Level: (lowlmed)	Date Received	f: 03/24/04			
% Moisture:decanted: (Y.N)	Date Extracted	3124	or-		
GC Column: DB-5MS-30M D: 25 (mm	Date Analyzed	: 04/07/04	Time:	2053	
Concentrated Extract Volume: '000 (µL)	Dilution Factor	1_	Analyst	RLW	
	Prep Method.		<del></del>		
Injection Volume: 10 ( µL )			242		
GPC Cleanup: (Y/N) N pH:	Analytica. <b>Met</b>		7-4		
COANCENTDATION LINETS: -1	nstrument ID	MSSV2			
CONCENTRATION UNITS: Jgt.	Prep Batch	271238	Analytical Batcl	h: 271976	
CAS NO. COMPOUND	RESULT	Q	MDL	PQL	
95-95-4 2,4,5-Trichiorechenox	:::	U	0.010	10.0	
<b>38-06-2</b> 2,4,6-Trichiarochena	10.0	U	0.010	10.0	
120-83-2 2,4-Dichlorophero	10.0	U	0.010	10.0	
51-28-5 2,4-Dinitropheno:	25.0	υ	0.010	25.0	
121-14-2 2.4-Omitrocouene	10.0	_ ن	0.010	10.0	
806-20-2 2.6-Dintrotokuene	• • • • •	U	0.010	10.0	
91-58-7 2-Chloronachthaiene	•::	Ú	0.010	10.0	
95-57-8 2-Chloropheno	10.0	U	0.010	10.0	
21-57-6 2-Methylnaphthalene	*C :	U	0.010	10.0	
96-74-4 2-Nitroansine	25 0	IJ	0.010	25.0	
98-75-5 2-Nitropheno:	•::	U	0.010	10.0	
91-94-1 3,3-Dichloropenz dine		U	0.010	10.0	
99-09-2 3-Nitroanime	25.0	U	0.010	25.0	
534-52-1 2-Methyl-4,6-c nstropheno	25.0	υ	0.010	25.0	
59-50-7 4-Chloro-3-meth/pheno	10.0	U	0.010	10.0	
106-47-8 4-Chloroansine	10.5	<del>- </del>	0.010	10.0	
7005-72-3 4-Chlorophenyl-phenylether	-::	U	0.010	10.0	
106-44-5 4-Methylpheno p-Dresor)	.(;	Ü	0.010	10.0	
33-32-9 Acanachthene	<del></del>	<del></del>	0.010	10.0	
208-96-8 Acanaphthylene	70:	U	0.010	10.0	
120-12-7 Anthracene	10.5	U	0.010	10.0	
56-55-3 Benzo(a)arithraciene	•6.5	<del>u</del>	0.010	10.0	
50-32-8 Benzo(a)pyrene	• ( ;	<del>U</del>	0.010	10.0	
205-99-2 Benzo(b)fluorantiene		U	0.010	10.0	
191-24-2 Benzo(g,huicen/ene	-:::	<del></del> -	0.010	10.0	
207-08-9 Benzo(k)fluorantriene	-:::	<u> </u>	0.010	10.0	
111-91-1 Bis(2-Chloroethary methane	•:::	U	0.010	10.0	
III-44-4 Bis(2-Chloroethy ether	700	U	0.010	10.0	
108-60-1 bss(2-Chloroiscompyliether	· <del></del>	<del>- 0</del>	0.010	10.0	
117-81-7 bis(2-ethylhex, ichthaiate		<del>- 3</del>	0.010	10.0	
** ** *		J	U.U IU	10.0	

Lab Name: _G	CAL	Sample ID: SKSW531009				_
Lab Code: LA024 Case No.: Contract:					_	
SAS No.:	SDG No.: 204032408	Lab File ID:				
Matrix: Water	·	Lab Sample I	D: 204032	240807		
Sample wt/vol:	1000 Units: mL	Date Collected: 03/22/04 Time: 1255				
Level: (low/med	)	Date Received: 03/24/04				-
	decanted: (Y/N)	Date Extracte	d: 312	s104		-
	08-5MS-30M ID: .25 (mm)	Date Analyze	d: 04/07/0	)4Time	e: 2053	_
_	xtract Volume: 1000 (µL)	Dilution Facto	or: <u>1</u>	Anal	yst: RLW	_
	e: 1.0 (µL)	Prep Method:				_
	Y/N) N pH:	Analytical Me				-
or o cleanapr (		Instrument ID	: MSSV2			-
CONCENTRAT	ION UNITS: ug/L	Prep Batch:		Analytical Ba	atch: 271976	•
CAS NO.	COMPOUND	RESULT	Q	MDL	PQL	•
101-55-3	4-Bromophenyl-phenylether	10.0	U	0.010	10.0	1
85-68-7	Butylbenzylphthalate	10.0	U	0.010	10.0	İ
86-74-8	Carbazole	10.0	U	0.010	10.0	
218-01-9	Chrysene	10.0	U	0.010	10.0	l
84-74-2	Di-n-butylphthalate	10. D.005	3	0.010	10.0	u
117-84-0	Di-n-octylphthalate	10.0	Ü	0.010	10.0	1,1
53-70-3	Dibenz(a,h)anthracene	10.0	Ü	0.010	10.0	"
132-64-9	Dibenzofuran	10.0	Ü	0.010	10.0	ĺ
84-66-2	Diethylphthalate	10.0	U	0.010	10.0	1
131-11-3	Dimethyl-phthalate	10.0	U	0.010	10.0	
105-67-9	2,4-Dimethylphenol	10.0	U	0.010	10.0	
206-44-0	Fluoranthene	10.0	U	0.010	10.0	
86-73-7	Fluorene	10.0	U	0.010	10.0	
113-74-1	Hexachlorobenzene	10.0	U	0.010	10.0	
87-68-3	Hexachlorobutadiene	10.0	U	0.010	10.0	
77-47-4	Hexachlorocyclopentadiene	10.0	Ų	0.010	10.0	
67-72-1	Hexachloroethane	10.0	U	0.010	10.0	
193-39-5	Indeno(1,2,3-cd)pyrene	10.0	U	0.010	10.0	
78-59-1	Isophorone	10.0	U	0.010	10.0	
91-20-3	Naphthalene	10.0	U	0.010	10.0	
100-01-6	4-Nitroaniline	25.0	U	0.010	25.0	
98-95-3	Nitrobenzene	10.0	U	0.010	10.0	
100-02-7	4-Nitrophenol	25.0	U	0.010	25.0	
87-86-5	Pentachlorophenol	25.0	U	0.010	25.0	
85-01-8	Phenanthrene	10.0	U	0.010	10.0	
108-95-2	Phenol	10.0	U	0.010	10.0	
129-00-0	Pyrene	10.0	U	0.010	10.0	
621-64-7	N-Nitroso-di-n-propylamine	10.0	U	0.010	10.0	
86-30-6	N-Nitrosodiphenylamine	10.0	U	0.010	10.0	
95-48-7	o-Cresol	10.0	U	0.010	10.0	

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FORM | SV-1

#### SEMINOLATILE ORGAN OS ANALAS SIDATA SHEET TENTATIVELY JOENT FIED COMPOUNDS

Lab Name: GCAL	Sample D SKSW531009
Lab Code: LA024 2 Case No.:	Contract
SAS No.: SDG No. 204032408	Lab File D   S5099
Matric Wster	Lati Sample ID: 20403240807
Sample wit/vol: Units:	Date Collected: 03/22/04 Time: 1255
Level: (lowfned)	Date Received: 03/24/04
% Maisture: not dec.	Date Extracted: 3125 34
GC Column: iD: (mm:	Date 4nalyzed: 04/07/04 Time: 2053
Concentrated Extract Volume 1000 (µL.	Silution Factor: 1 Analyst: RLW
Injection Volume: + C (u.L.	Prec Method:
GPC Cleanup: (Y/N) N pH:	Analytical Method: SW-846 8270C
	nstrument ID: MSSV2
Number TICs Found: 0	
CONCENTRATION UNITS	
CAS NO. COMPOUND	RT EST. CONC. Q
1. No bcs ceteded	

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### 1D ORGANICS ANALYSIS DATA SHEET

Lab Name:	Sample ID: SKSWEB1009				
Lab Code:	LA024 Case No.:	Contract:		- 14-1-1-1-1	· · · · · · · · · · · · · · · · · · ·
Matrix: Wa	ater	SAS No.:		SDG No.:	204032408
Sample wt/v	ol: 1000 Units: mL	Lab Sample (C	): 2040324	10801	
Level: (low/r	ned)	Date Collected	i: 03/22/04	Time:	1345
	decanted: (Y/N)	Date Received	l: 03/24/04	<b>.</b>	
GC Column:	DB-608-30M ID: .53 (mm)	Date Extracted	: 3126i	<b>04</b>	
Concentrate	d Extract Volume: 1000 (μL)	Date Analyzed	: 04/01/04	Time:	1730
Soll Aliquot	Volume: ( μL )	Dilution Factor	: <u>1</u>	Analys	it: TLS
Injection Vol	ume:1 (µL)	Prep Method:			
GPC Cleanu	p; (Y/N) N pH:	Analytical Meth	nod: OLM	0 4.2	
Prep Batch:	271349 Analytical Batch: 271697	_ Sulfur Cleanup	: (Y/N) N	Instrument	ID: GCS6A
CONCENTR	ATION UNITS: ug/L	Lab File ID:	20403	31/SV6042	
CAS NO.	COMPOUND	RESULT	Q	MDL	RL
72-54-8	4,4'-DDD	0.100	U	0.00010	0.100
72-55-9	4,4'-DDE	0.100	Ų	0.00010	0.100
50-29-3	4,4'-DDT	0.100	U	0.00010	0.100
309-00-2	Aldrin	0.050	U	0.00010	0.050
12674-11-2	Aroclor-1016	1.00	U	0.00010	1.00
11104-28-2	Aroclor-1221	2.00	U	0.00010	2.00
11141-16-5	Aroclor-1232	1.00	U	0.00010	1.00
53469-21-9	Aroclor-1242	1.00	U	0.00010	1.00
12672-29-6	Aroclor-1248	1.00	U	0.00010	1.00
11097-69-1	Aroclor-1254	1.00	U	0.00010	1.00
11096-82-5	Aroclor-1260	1.00	Ü	0.00010	1.00
60-57-1	Dieldrin	0.100	U	0.00010	0.100
959-98-8	Endosulfan I	0.050	U	0.00010	0.050
33213-65-9	Endosulfan II	0.100	U	0.00010	0.100
1031-07-8	Endosulfan sulfate	0.100	U	0.00010	0.100
72-20-8	Endrin	0.100	U	0.00010	0.100
7421-93-4	Endrin aldehyde	0.100	U	0.00010	0.100
53494-70-5	Endrin ketone	0.100	U	0.00010	0.100
76 <del>-44-</del> 8	Heptachlor	0.050	U	0.00010	0.050
1024-57-3	Heptachlor epoxide	0.050	U	0.00010	0.050
72-43-5	Methoxychior	0.500	U	0.00010	0.500
8001-35-2	Toxaphene	5.00	U	0.00010	5.00
319-84-6	alpha-BHC	0.050	U	0.00010	0.050
5103-71-9	alpha-Chlordane	0.050	J	0.00010	0.050
319-85-7	beta-BHC	0.050	U	0.00010	0.050
319-86-8	delta-BHC	0.050	U	0.00010	0.050
58-89-9	gamma-BHC (Lindane)	0.050	U	0.00010	0.050
5103-74-2	gamma-Chlordane	0.050	U	0.00010	0.050

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### CRGHNICS ANALYSIS DATA SHEET

Lab Name: GCAL	Sampe D St	(SW51100	9	
Lab Code: LA024 Case No.:	Contract:			
Metric Water	SAS No		SDG No.:	204032408
Sample wi/vol: 1000 Units mL	Lab Sample ID:		_ <del></del>	
	-			4040
Level: (lowlmed)	Eate Collected:	03/22/04	Time:	1040
% Moisture: decanted: (Y*N)	Date Received:	03/24/04		
GC Column: <u>DB-608-30M</u> ID: <u>53</u> (mm	Date Extracted:	312	124	
Concentrated Extract Volume: 1000 ( µL	Date Analyzed:	04/02/04	Time:	1158
Soil Aliquot Volume: ( µL	Dilution Factor:	1	Analys	t HJL
Injection Volume: 1 (µL				-
GPC Cleanup: (Y/N) N pH:		d: OLMC	14.2	
Prep Butch: 271349 Analytical Batch: 271697	-			ID: GCS6A
2713/8 2.10 year bate : 27103/			<del></del>	D. GOODA
CONCENTRATION UNITS: Light	Lab File D	204033	11/SV6053	<u> </u>
CAS NO. COMPOUND	RESULT	Q	MDL	RL
72-54-8 4,4'-D0D	0.100	U	0.00010	0.100
72-55-9 4.4'-DOE	0.150	U	0.00010	0.100
50-29-3 4,4'-DOT	0.100	U	0.00010	0.100
309-00-2 Aldrin	0.050	U	0.00010	0.050
12674-11-2 Aroctor-1016	1.00	U	0.00010	1.00
11104-28-2 Araclar-1221	2.00	U	0.00010	2.00
11141-16-5 Araclar-1232	5.00	j	0.00010	1.00
53469-21-9 Aroclor-1242	<del></del>	U	0.00010	1.00
12672-29-6 Aroclor-1248	1 3/2	U	0.00010	1.00
11097-89-1 Aroclor-1254	1.00	Ü	0.00010	1.00
11096-82-5 Aroctor-1260	• 00	Ü	0.00010	1.00
80-57-1 Dieldrin	0.100	IJ	0.00010	0.100
959-98-8 Endosultan i	0.050	U	0.00010	0.050
33213-65-9 Endosulfan II	0.100	Ü	0.00010	0.100
1031-07-8 Endosulfan suifate	0.700	U	0.00010	0.100
72-20-8 Endrin	2.100	U	0.00010	0.100
7421-83-4 Endrin aldehyde	0.100	U	0.00010	0.100
53494-70-5 Endrin ketone	2 150	U	0.00010	0.100
76-44-8 Heptachlor	0.051	<del>- U</del>	0.00010	0.050
1024-57-3 Heptachlor epoxode	2.15.	U	0.00010	0.050
72-43-5 Methaxychlor	0.500	<del>J</del>	0.00010	0.500
9001-35-2 Toxaphene	5.0.1	<del>U</del>	0.00010	5.00
319-84-6 alpha-BHC	0.65		0.00010	0.050
5103-71-9 slphe-Chiordane		11		0.050
319-85-7 beta-BHC	0 (5)	U	0.00010	
	0.051	<del>U</del>		0.050
319-86-8 delta-BHC	0.051	<u>ن</u>	0.00010	0.050
58-69-9 gamma-BHC (Lindane)	0.050	<u>.                                    </u>	0.00010	0.050
5103-74-2 gamma-Chlordane	0.050	j	0.00010	0.050

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1D ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL	Sample ID: SKSW521009
Lab Code: LA024 Case No.:	Contract:
Matrix: Water	SAS No.: SDG No.: 204032408
Sample wt/vol: 1000 Units: mL	Lab Sample ID: 20403240806
Level: (low/med)	Date Collected: 03/22/04 Time: 1230
% Moisture: decanted: (Y/N)	Date Received: 03/24/04
GC Column: DB-608-30M ID: .53 (mm)	Date Extracted: 312694
Concentrated Extract Volume: 1000 ( µL )	Date Analyzed: 04/01/04 Time: 1907
Soll Aliquot Volume: (µL)	Dilution Factor: 1 Analyst: HJL
Injection Volume: 1 (µL)	Prep Method:
GPC Cleanup: (Y/N) N pH:	Analytical Method: OLMO 4.2
Prep Batch: 271349 Analytical Batch: 271697	Sulfur Cleanup: (Y/N) N Instrument ID: GCS6A
CONCENTRATION UNITS: ug/L	Lab File (D: 2040331/SV6046
CAS NO. COMPOUND	RESULT Q MDL RL
72-54-8 4,4'-DDD	0.100 U 0.00010 0.100
72-55-9 4,4'-DDE	0.100 U 0.00010 0.100
50-29-3 4,4'-DDT	0.100 U 0.00010 0.100
309-00-2 Aldrin	0.050 U 0.00010 0.050
12674-11-2 Aroclor-1016	1.00 U 0.00010 1.00
11104-28-2 Aroclor-1221	2.00 U 0.00010 2.00
11141-16-5 Aroclor-1232	1.00 U 0.00010 1.00
53469-21-9 Aroclor-1242	1.00 U 0.00010 1.00
12672-29-6 Aroclor-1248	1.00 U 0.00010 1.00
11097-69-1 Arodor-1254	1.00 U 0.00010 1.00
11096-82-5 Arodor-1260	1.00 U 0.00010 1.00
60-57-1 Dieldrin	0.100 U 0.00010 0.100
959-98-8 Endosulfan I	0.050 U 0.00010 0.050
33213-65-9 Endosulfan II	0.100 U 0.00010 0.100
1031-07-8 Endosulfan sulfate	0.100 U 0.00010 0.100
72-20-8 Endrin	0.100 U 0.00010 0.100
7421-93-4 Endrin aldehyde	0.100 U 0.00010 0,100
53494-70-5 Endrin ketone	0.100 U 0.00010 0.100
76-44-8 Heptachlor	0.050 U 0.00010 0.050
1024-57-3 Heptachlor epoxide	0.050 U 0.00010 0.050
72-43-5 Methoxychlor	0.500 U 0.00010 0.500
8001-35-2 Toxaphene	5.00 U 0.00010 5.00
319-84-6 alpha-BHC	0.050 U 0.00010 0.050
5103-71-9 alpha-Chlordane	0.050 U 0.00010 0.050
319-85-7 beta-BHC	0.050 U 0.00010 0.050
319-86-8 delta-BHC	0.050 U 0.00010 0.050
58-89-9 gamma-BHC (Lindane)	0.050 U 0.00010 0.050
5103-74-2 gamma-Chlordane	0.050 U 0.00010 0.050

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#### US ERA - CLP

EPA SAMPLE NO.

INDRGANIC	ANAL	5 5	DATA	SHEET
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;	SKSW	ÆB10	009		-	

Lab Name: GCAL	Contract	
Lab Code: LA024 Case ha	\$45 10	SDG No.: 204032408
Matric ( soil / water ) Water	Lab Sample ID 20403240	0801
Levet (low / med )	Date Received 03/24/04	
% Solids:	-	
	_	

Concentration Units (ug/L or mg/kg ary weight) : Ug/L

CAS No.	Analyte	Concentration	С	Q	М	7
7440-36-0	Antimony	37	U	N	P	ا [
7440-38-2	Arsenic	2.9	J	N,*	Р	7
7440-39-3	Barium	03	3	',E	Р	7 1
7440-41-7	Beryllium	0.1	J		P	7
7440-43-9	Cadmium	0.5			P	7
7440-47-3	Chromium	1.0	3	•,€	Р	_ 1
7440-50-8	Copper	6 5	3	•	Р	_ 1
7439-89-6	Iron	37 8	3	',E	Р	_ 1
7439-92-1	Leed	1.5	L L	•	Р	_
7439-97-6	Mercury	0.1			AV	
7440-02-0	Nickel	1.4	В	*,E	Р	_ 1
7762-49-2	Selenium	4.4	U	N	Р	- r
7440-22-4	Silver	12	8		Р	_
7440-28-0	Thallium	2.5	L		P	_
7440-66-6	Zinc	9 7	B	N,	Р	_ 1
57-12-5	Cyanide	0.5	U		AS	_

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Color Before:	COLORLESS	Clarity Before	CLEAR	Texture:	
Color After:	COLORLESS	Clarky After	CLEAR	Artifacts:	
Comments:					

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#### U.S. EPA - CLP

#### EPA SAMPLE NO.

INORGANIC		

Lab Name: GCAL	Contract:		·		
Lab Code: LA024 Case No.:	SAS No.:		SDG No.:	204032408	
Matrix: ( soil / water ) Water	Lab Sample ID:	20403240802			
Level: ( low / med )	Date Received:	03/24/04			
% Solids:					
Concentration Units (ug/L or mg/kg dry weight): ug/L					

CAS No.	Analyte	Concentration	С	Q	M	]
7440-36-0	Antimony	7.3	В	N	P	17
7440-38-2	Arsenic	50.7		N,*	P	11
7440-39-3	Barium	499		*,E	P	11
7440-41-7	Beryllium	4.9	В		Р	1
7440-43-9	Cadmium	5.0			P	1
7440-47-3	Chromium	72.6		*,E	Р	1 1
7440-50-8	Copper	131		*	P	1 1
7439-89-6	Iron	124000		*,E	Р	1 1
7439-92-1	Lead	122		•	Р	] ]
7439-97-6	Mercury	0.1	В		AV	1
7440-02-0	Nickel	116		*,E	Р	11
7782-49-2	Selenium	4.4	U	N	Р	1 R
7440-22-4	Silver	0.4	U		Р	1
7440-28-0	Thallium	2.6	U		Р	1
7440-66-6	Zinc	490		N,*	Р	1 1
57-12-5	Cyanide	0.8	В		AS	1

Color Before:	DK. BROWN	Clarity Before:	CLOUDY	Texture:	
Color After:	LT. BROWN	Clarity After:	CLEAR	Artifacts:	
Comments:					

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144 C			-		_	~	'

SKSW51DUP1009
SKSW51DUP1009

•			SKSWSI	DUFIUG
Lab Name: GCAL	Contract			
ab Code: LA024 Case No	S4 2 42		SDG No.:	204032408
Matric (soil / water) Water	Lab Sample ID	20403240805		
evel: (low / med.)	Date Received.	03/24/04		
% Solids:				
Consensation I leak head or mades do consent)	Len A			

Concentration Units (ug/L or mg/kg dry weight):

CAS No.	Anatyte	Concentration	C	Q	М
7440-36-0	Antimoriy	6.7	В	N	Р
7440-38-2	Arsenic	€7 0		N,*	P
7440-39-3	Barium	714		*.E	Р
7440-41-7	Beryllium	6.7			P
7440-43-9	Cadmium	7.2			Р
7440-47-3	Chromium	102		•,E	Р
7440-50-8	Copper	174		•	Р
7439-89-6	Iran	173000		• <u>.</u> E	P
7439-92-1	Lead	:59			Р
7439-97-6	Mercury	С 3			AV
7440-02-0	Nickel	162		*,E	Р
7782-49-2	Selenium	44	Ų	N	Р
7440-22-4	Silver	0.4	L:	<del></del>	Р
7440-28-0	Thalfium	2.6	U		Р
7440-66-6	Zinc	679		N,*	Р
57-12-5	Cyanide	1,1	В		AS

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Color Before:	DK BROWN	Clarity Before	CLOUDY	Texture:	
Color After:	LT. BROWN	Clarity After	CLEAR	Artifacts:	

Comments:

#### U.S. EPA - CLP

#### EPA SAMPLE NO.

INORGANIC	ANALYSIS	DATA	SHEET
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SKSW521009
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Lab Name: G	CAL	Cont	ract:	<u> </u>	-		
Lab Code: LA	024 Case No.:	SAS	No.:	SD	G No.:	204032408	<del></del>
Matrix: ( soil / wa	ater) Water	Lab Sai	mple ID: _20-	403240806	••••		
Level: ( low / me	d)	Date R	eceived: 03	/24/04			<del></del>
% Solids:	********************************			<del></del>			
Concentration (	Jnits (ug/L or mg/kg dry weigh	t) : ug/L		·			
CAS No.	Analyte	Concentration	С	Q		M	
7440-36-0	Antimony	3.7	U	N		P UI	
7440-38-2	Arsenic	11.1		N,*		PJ	
7440-39-3	Barium	112	В	*,E		PJ	

CAS No.	Analyte	Concentration	С	Q	М	]
7440-36-0	Antimony	3.7	U	N	P	uJ
7440-38-2	Arsenic	11.1		N,*	Р	T
7440-39-3	Barium	112	В	*,E	Р	<b>1 3 1</b>
7440-41-7	Beryllium	0.7	В		Р	1
7440-43-9	Cadmium	0.5	8		Р	1
7440-47-3	Chromium	12.7		*,E	Р	11
7440-50-8	Copper	22.0	В	•	P	] ]
7439-89-6	Iron	17800		*,E	Р	15
7439-92-1	Lead	17.3		•	P	금
7439-97-6	Mercury	0.1	U		AV	1
7440-02-0	Nickel	16.4	В	*,E	Р	1 ]
7782-49-2	Selenium	4.4	U	N	Р	] R
7440-22-4	Silver	0.4	U		Р	
7440-28-0	Thallium	2.6	U		Р	1
7440-66-6	Zinc	52.9		N,*	Р	1.2
57-12-5	Cyanide	0.6	В		AS	1

6103104

Color Before:	LT. BROWN	Clarity Before:	CLEAR	Texture:	
Color After:	LT. BROWN	Clarity After:	CLEAR	Artifacts:	
Comments:					

#### USEP1 CLP

EPA SAMPLE NO.

INORGANIC	APAL - C	TAC :	SHEET
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SKSW531009	

				SKSWS	31009
Lab Name; _G	CAL	Contra	ed		
Lab Code: LA	024 Case No	548	lo ·	SDG No.:	204032408
Matric (soil/w	aler) Water	Lab Sam	ple ID. 20403240	<b>8</b> 07	
Level: ( low / me	ed)	Date Re	ceived: 03/24/04		
% Solida:				<del></del>	
Concentration (	Units (ug/L or mg/kg dry weigt	nt) ug/L			
CAS No.	Analyte	Concentration	2	Q	М
7440-36-0	Antimony	37	L L	N	P UI
7440-38-2	Arsenic	29	Ü	N,*	P
7440-39-3	Barium	41.7	В	•,E	PJ
7440-41-7	Beryllium	01	U		Р
7440-43-9	Cadmium	0.2	U		P
7440-47-3	Chromium	1.7	Đ	•.E	PJ
7440-50-8	Copper	3.2	В	•	PJ
7439-89-6	Iron	57.8	В	*,E	P 3
7439-92-1	Lead	1.5	J _	•	P
7439-97-6	Mercury	01	ن		AV
7440-02-0	Nickel	1.1	В	*,E	P
7782 <del>-49-</del> 2	Selenium	4.4	U	N	PR
7440-22-4	Silver	0 6	8		P
7440-28-0	Thallium	2.6	U		P
7440-66-6	Zinc	0.6	U	N.*	P

0.5

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AS

Color Before:	COLORLESS	Clarity Before	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After	CLEAR	Artifacts:	

Comments:

57-12-5

Cyanide

### U.S. EPA - CLP

1

#### EPA SAMPLE NO.

INORGANIC	ANAL VSIS	DATA	SHEE.

SKSWEB1009 (DISS)

Lab Name: GCAL	Contract:		
Lab Code: LA024 Case No.:	SAS No.:	SDG No.:	204032408
Matrix: ( soil / water ) Water	Lab Sample ID: 20403240808		
Level: ( low / med )	Date Received: 03/24/04		
% Solids:	<del></del>		
Concentration Units (ug/L or mg/kg dry weight): ug/L			

CAS No.	Analyte	Concentration	С	Q	М	7
7440-36-0	Antimony	3.7	U	<del></del>	P	1
7440-38-2	Arsenic	2.9	U	N	P	1
7440-39-3	Barium	0.4	В		Р	1
7440-41-7	Beryllium	0.1	U		P	1
7440-43-9	Cadmium	0.2	U		Ρ	1
7440-47-3	Chromium	0.8	U		Р	1
7440-50-8	Copper	4.2	В		Р	1
7439-89-6	Iron	14.1	U		Р	1
7439-92-1	Lead	1.5	U		P	1
7439-97-6	Mercury	0.1	U		AV	1
7440-02-0	Nickel	0.7	U		P	1
7782-49-2	Selenium	4.4	U	N	Р	1 R
7440-22-4	Silver	0.4	U		Р	1
7440-28-0	Thallium	2.6	U		Р	1
7440-66-6	Zinc	5.6	В	·	Р	1

Color Before:	COLORLESS	Clarity Before:	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After:	CLEAR	Artifacts:	
Comments:					

### US F & + CLP

EPA SAMPLE NO.

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11.4		- 110	,,,,		а.	٠,			• .	 -	ς.	4

SKSW511009 (DISS)

Name: GCAL	Contract:	L		
Code: LA024 Case No	SAS No		SDG No.:	204032408
tric (soil / water) Water	Lab Sample ID. 20	0403240809		
et ( low / med )	Date Peceived 03	3/24/04		
Solids:				

CAS No.	Analyte	Concentration	С	Q	М
7440-36-0	Antimony	37	U		Р
7440-38-2	Arsenic	29	U	N	Р
7440-39-3	Barium	35.8	В		Р
7440-41-7	Beryllium	01	Ų		P
7440-43-9	Cadmium	02	IJ		P
7440-47-3	Chromium	16	e		Р
7440-50-8	Copper	4.3	В		P
7439-89-6	Iran	14.1	i.		Р
7439-92-1	Leed	1.5	U		Р
7439-97-6	Mercury	0.1	U		AV
7440-02-0	Nickel	1.0	В		Р
7782-49-2	Selenium	44	U	N	Р
7440-22-4	Silver	0.4	U		Р
7440-28-0	Thellium	26	IJ		P
7440-66-6	Zinc	0.6	L		P

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Color Before:	COLORLESS	Clarity Before	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After	CLEAR	Artifacts:	<del></del>
C					

Comments:

#### U.S. EPA - CLP

#### EPA SAMPLE NO.

INORGANIC	ANALYSIS	DATA	SHEET
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SKSW51DUP1009 (DISS)

Lab Name: GCAL	Contract:	<u> </u>		
Lab Code: LA024 Case No.:	SAS No.:		SDG No.:	204032408
Matrix: ( soil / water ) Water	Lab Sample iD:	20403240811		
Level: ( low / med )	Date Received:	03/24/04		
% Solids:				
Concentration Units (ug/L or mg/kg dry weight) : ug/L				

CAS No.	Analyte	Concentration	С	Q	М	7
7440-36-0	Antimony	3.7	U		Р	1
7440-38-2	Arsenic	2.9	U	N	Р	7
7440-39-3	Barium	33.0	В		Р	7
7440-41-7	Beryllium	0.1	U		P	7
7440-43-9	Cadmium	0.2	U		Р	1
7440-47-3	Chromium	1.4	В		P	7
7440-50-8	Copper	1.6	В		Р	1
7439-89-6	Iron	14.1	U		Р	1
7439-92-1	Lead	1.5	U	——————————————————————————————————————	P	1
7439-97-6	Mercury	0.1	U		AV	7
7440-02-0	Nickel	1.0	В		P	7
7782-49-2	Selenium	4.4	υ	N	Р	7 R
7440-22-4	Silver	0.4	U		P	1
7440-28-0	Thallium	2.6	U		Р	1
7440-66-6	Zinc	0.6	Ü		Р	7

Color Before:	COLORLESS	Clarity Before:	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After:	CLEAR	Artifacts:	
Commonte:					

### US EP! - CLP

EPA SAMPLE NO.

MORGANIC	ANALYSIS	CATA	SHEET
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SKSW521009	(221M)

Lab Name: GC	AL	Contract:	L		
Lab Code: LAO	24 Case \( \( \) \	_ SAS '10 _		SDG No.:	204032408
Matric ( soil / wat	er) Water	Lab Sample ID	20403240812		
Level: ( low / med	)	Date Received	03/24/04		
% Solide:					
Concentration U	nits (ug/L or mg/kg dry weight) : ug/L				

CAS No.	Analyte	Concentration	С	Q	М	7
7440-36-0	Antimony	3.7	ī į		Р	1
7440-38-2	Arsenic	29	Ĺ	N	Р	1
7440-39-3	Barium	36.7	£		Р	1
7440-41-7	Beryllium	0.1	L		Р	1
7440-43-9	Cadmium	0.2	L		Р	1
7440-47-3	Chromium	17	B		Р	1
7440-50-8	Copper	3.0	В		P	1
7439-89-6	Iron	141	Ü		P	1
7439-92-1	Lead	1.5	U		P	1
7439-97-6	Mercury	0.1	Ü		AV	1
7440-02-0	Nickel	2.4	В		P	1
7782-49-2	Selenium	44	Ų	N	Р	٦ ١
7440-22-4	Silver	04	U		Р	٦
7440-28-0	Thellium	26	Ĺ.		Р	7
7440-66-6	Zinc	34	е		Р	1

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Color Before:	COLORLESS	Clarity Before	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After	CLEAR	Artifacts:	
Comments:					

#### U.S. EPA - CLP

#### INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SKSW531009 (DISS)	
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Lab Name: GCAL	Contract:	L		
Lab Code: LA024 Case No.:	SAS No.:		SDG No.:	204032408
Matrix: ( soil / water ) Water	Lab Sample ID:	20403240813		
Level: ( low / med )	Date Received:	03/24/04		
% Solids:	•			

Concentration Units (ug/L or mg/kg dry weight):

ug/L

CAS No.	Analyte	Concentration	С	Q	M	7
7440-36-0	Antimony	3.7	U	<del></del>	Р	1
7440-38-2	Arsenic	2.9	U	N	Р	1
7440-39-3	Barium	40.7	В	<del></del>	P	7
7440-41-7	Beryllium	0.1	U		Р	7
7440-43-9	Cadmium	0.2	U		P	7
7440-47-3	Chromium	1.3	В		P	1
440-50-8	Copper	2.0	В		P	1
439-89-6	Iron	14.1	U		Р	7
7439-92-1	Lead	1.5	U	<del></del>	Р	1
7439-97-6	Mercury	0.1	U		AV	7
440-02-0	Nickel	0.7	U		P	7
782-49-2	Selenium	4.4	U	N	Р	] [
440-22-4	Silver	0.4	u		P	7
440-28-0	Thallium	2.6	U		Р	1
440-66-6	Zinc	4.5	В		Р	7



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Clarity Before:

CLEAR

Texture:

Color After:

COLORLES

Clarity After:

CLEAR

Artifacts:

Comments:

FORM I - IN

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CCM	CHAIN OF CUSTO	RECORD	
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ddress: 200 Ving Street Ad Wilder, K1 41076 Contact: 8 a. 1 1 1991-3 Co Phone: 854 442-2300 F	Bill to: Client: Sdreae: Ontact: Phone:	Analytical Requests & Method	Lab use only:  Custody Seal  used
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lefingulahed by: (Signature) Received by: (Si	Ignature	Note: No trip Llank Solorited braking during shipment - Low Sault Volume for Go  Sy submitting these samples, you agree to the terms ar conditions contained in our most recent schooling.	due to lettles quipment Blank

GULF COAST ANALYTICAL LABORATORIES, INC
7979 GSRI Avenue, Baton Rouge, Louisiana 70820-7402
Phone 225.769.4900 • Fax 225.767.5717

Labuse only Labuse only

4342 Client #

MECORD

204032408

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Report to: Bill to:			Analytical Requests & Method							Lab use only:	1		
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Sampled By: Pat Higgins/ Chris Cox				Vo[at,[c	3 0	5	1	25.5	3	,	7		Lab ID
Matrix <sup>1</sup> Date Time C G G Sample Description		Preservatives	No Con- tainers	2	تمالا	Q-	+ 1	4	ال			Remarks:	3/24
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Turn Around Time: 24-48 hrs. 3 days 1 week Standard Other													
Received by: (Signature)  Received by: (Signature)  Date: Time: 5/23/,04			Note	Note:									
Relinquished by: (Bonature)  Received by  Received by	r: (Signature)	24/64 D	ne: 720										
Received by: (Signature)  Received by: (Signature)  Date: Time:					By submitting these samples, you agree to the terms and conditions contained in our most recent schedule of services.								

MECORD

Labele only HATELL
Client Name

4342 Client #

204032408

4/7/14

Workorder # Due chafe

Report to:  Client: Eq. + Tr. Ch  Address: 200 Vinx Struct  Willer, k'r 41076  Contact: Pat (this gins  Phone: 959 412 - 2700  Fax: 954 442 - 2711	Contact: Phone: Fax:	Analytical Requests & Method	Lab use only.  Custody Seal  used [
Compated Day	rendfill- 1 Qtr. 2004  gi-s/Chris (sx  Preservatives Containers Various 7  Various 7	10147165 XX Schilder XX Pest-cides XX Pest-cides	Remarks:  Refer to  Table 7  (Table 7  (TAL) of  The Final  O: M. Plan  for the  list of  analytes
Turn Around Time: 24-48 hrs. 3	days 1 week Standard	Other	
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### DATA VALIDATION REPORT

**FOR** 

SKINNER LANDFILL SITE

**EARTH TECH: PROJECT NUMBER 54280** 

**LABORATORY REPORT NUMBER 204031909** 

PROJECT MANAGER: Ron Rolker

Date: May 11, 2004

Data Validator: Mark Kromis

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#### APPENDIX C LIST OF ACRONYMS

BFB Bromofluorobenzene
CC Continuing Calibration

CCV Continuing Calibration Verification
CCB Continuing Calibration Blanks
CLP Contract Laboratory Program
CRDL Contract Required Detection Limit
DFTPP Decafluorotriphenylphosphine

GC/MS Gas Chromatograph Mass Spectrometer

IC Initial Calibration

ICB Initial Calibration Blank
IDL Instrument Detection Limit
ICP Inductively Coupled Plasma
ICS Interference Check Sample
ICV Initial Calibration Verification

ILM Inorganic Analysis Multi-Media Multi-Concentration

INDAM Individual A Mixture INDBM Individual B Mixture mg/L milligrams per liter

MS/MSD Matrix Spike Matrix Spike Duplicate
OLC Organic Analysis Low Concentration

OLM Organic Analysis Multi-Media Multi-Concentration

**%D** Percent Difference

**% RSD** Percent Relative Standard Deviation

PB Preparation Blanks
QC Quality Control
RF Response Factor

RPD Relative Percent Difference
RRF Relative Response Factor
SDG Sample Delivery Group
SOW Statement of Work

ug/L micrograms per liter

US EPA United States Environmental Protection Agency

VOC Volatile Organic Compounds
VTSR Validated Time of Sample Receipt

#### DATA VALIDATION SUMMARY – SAMPLE DELIVERY GROUP 204031909 INORGANICS

Validation of the inorganics data, as prepared by Gulf Coast Analytical Laboratories (GCAL) for the samples collected from the Skinner Landfill site in March 2004, was conducted by Earth Tech using the National Functional Guidelines for Inorganic Data Review, (US EPA, February, 1994), as appropriate. The results were reported by GCAL under Sample Delivery Group (SDG) 204031909.

GCAL #	Sample Description
20403190901	SKGW581009
20403190902	SKGW58DUP1009
20403190903	SKGW631009
20403190904	SKGW611009
20403190905	SKGW61MS1009
20403190907	SKGW61DUP1009
20403190908	SKGWFB1009
20403190910	SKGW581009 (DISS)
20403190911	SKGW58DUP1009 (DISS)
20403190912	SKGW631009 (DISS)
20403190913	SKGW611009 (DISS)
20403190914	SKGW61MS1009 (DISS)
20403190915	SKGW61DUP1009 (DISS)
20403190916	SKGWFB1009 (DISS)
20403220801	SKGW06R1009
20403220802	SKGW07R1009
20403220803	SKGW591009
20403220804	SKGW601009
20403220805	SKGW62A1009
20403220806	SKGW641009
20403220807	SKGW651009
20403220808	SKGW06R1009 (DISS)
20403220809	SKGW07R1009 (DISS)
20403220810	SKGW591009 (DISS)
20403220811	SKGW601009 (DISS)
20403220812	SKGW62A1009 (DISS)
20403220813	SKGW641009 (DISS)

#### INTRODUCTION

Analyses of metals were performed according to Contract Laboratory Program (CLP)-Inorganic Analysis Multi-media Multi-concentration ILM04.1 Statement of Work (SOW). Results of the sample analyses are reported by the laboratory as either qualified or unqualified. Unqualified results mean that the reported values maybe used without reservation. Various qualifier codes are used by the laboratory to denote specific information regarding the analytical results.

The data validation process is intended to evaluate the data on a technical basis. The data package also was subjected to an internal laboratery quality review prior to submission to Earth Tech for data validation.

During the validation process, laboratory-qualified and unqualified data are verified against all available supporting documentation. Based on this evaluation, qualifier codes may be added, deleted or modified by the data user. Final results are therefore, either qualified or unqualified. Validator-qualified results are annotated with the following codes in accordance with the Functional Guidelines:

- U The constituent was analyzed for, but was not detected above the level of the associated analytical reporting limit. The associated value is either the sample quantitation limit or the sample detection limit.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- UI The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Details of the inorganics data validation findings and conclusions are provided in the following sections of this report:

- 1. Holding Times
- 2. Calibration
  - A. Initial Calibration (IC)
  - **B.** Continuing Calibration (CC)
- 3. Blanks
- 4. Inductively Coupled Plasma (ICP) Interference Check Sample
- 5. Laboratory Control Sample (LCS)
- 6. **Duplicate** Analysis

- 7. Spike Sample Analysis
- 8. ICP Serial Dilution
- 9. System Performance
- 10. Documentation
- 11. Overall Assessment

#### 1. HOLDING TIMES

All samples for inorganics analyses were analyzed within the 180-day holding time for preserved aqueous samples. Mercury analyses were conducted within the 28-day holding time for aqueous samples undergoing CLP protocol. Cyanide analyses were conducted within the 14-day holding time. The cooler temperature upon receipt at the laboratory was within the recommended temperature of 4°C +/- 2°C.

#### 2. CALIBRATION

#### A. Initial Calibration

The percent recoveries for the Initial Calibration Verification (ICV) standard were within Quality Control (QC) limits for all constituents.

#### B. Continuing Calibration

The percent recoveries for the Continuing Calibration Verification (CCV) standard were within QC limits for all constituents.

#### 3. BLANKS

The Initial Calibration Blank (ICB), Continuing Calibration Blanks (CCB) and Preparation Blanks (PB) were analyzed at the appropriate frequencies. No analytes were detected in the ICB, CCB, PB and Field blanks above the corresponding Contract Required Detection Limit (CRDL).

#### 4. ICP INTERFERENCE CHECK SAMPLE

Results for the ICP analysis of the Interference Check Sample (ICS) solution AB were within 20% of the true value.

#### 5. LABORATORY CONTROL SAMPLES

Recoveries were within the control limit (80-120%) for all constituents.

#### 6. DUPLICATE ANALYSIS

The Relative Percent Difference (RPD) between the sample and duplicate results were within the acceptance criteria for all target compounds.

#### 7. SPIKE SAMPLE ANALYSIS

The laboratory used sample SKGW611009 for the matrix spike sample. The MS percent recoveries were within the acceptance criteria (75%-125%) with the exception of Selenium in the total (45%) and dissolved (73%) fractions. As per the National Functional Guidelines: if the percent recovery is greater than 30% and less than 74% qualify detected results for that analyte with "J" and non-detected results with "UJ".

#### 8. ICP SERIAL DILUTION

As noted in the National Functional Guidelines: If the analyte concentration is at least 50 times above the IDL, its serial dilution analysis must then agree within 10% of the original determination after corrected for dilution. The serial dilution is performed to determine whether any significant chemical or physical interference's exist due to matrix effects. The serial dilution percent differences were within the acceptance criteria for all target analytes.

#### 9. SYSTEM PERFORMANCE

The analytical system appears to have been working well at the time of these analyses, based on the evaluation of the raw data.

#### 10. **DOCUMENTATION**

The documentation appeared accurate and in order.

#### 11. OVERALL ASSESSMENT

The percent recoveries for Thallium in the Contract Required Detection Limit (CRDL) standards were 125.8%, 146.7%, and 130.4%. The percent recoveries for Zinc in the Contract Required Detection Limit (CRDL) standards were 73.9%, 71.5%, and 68.9%. The detected Thallium and Zinc results greater than the IDL but less than two times the CRDL were qualified with as estimated with "J". The percent recovery for Selenium in the last Contract Required Detection Limit (CRDL) standards was 138.5%. The Selenium results were previously qualified under Section 7-titled "Spike Sample Analysis". The results are acceptable with the validator-added qualifiers.

#### DATA VALIDATION SUMMARY – SAMPLE DELIVERY GROUP 204031909 SEMIVOLATILE ORGANICS

Validation of the Gas Chromatograph/Mass Spectrometer (GC/MS) semi-volatile organics data, as prepared by Gulf Coast Analytical Laboratories (GCAL) for the samples collected from the Skinner Landfill site in March 2004, was conducted by Earth Tech using the National Functional Guidelines for Organic Data Review, (US EPA, October, 1999) as appropriate. The results were reported by GCAL under SDG 204031909.

GCAL#	Sample Description
20403190901	SKGW581009
20403190902	SKGW58DUP1009
20403190903	SKGW631009
20403190904	SKGW611009
20403190905	SKGW61MS1009
20403190906	SKGW61MSD1009
20403190908	SKGWFB1009
20403220801	SKGW06R1009
20403220802	SKGW07R1009
20403220803	SKGW591009
20403220804	SKGW601009
20403220805	SKGW62A1009
20403220806	SKGW641009
20403220807	SKGW651009

#### INTRODUCTION

Analyses were performed according to CLP-Organic Analysis Multi-Media, Multi-Concentration OLM04.2 SOW. Results of the sample analyses are reported by the laboratory as either qualified or unqualified. Unqualified results mean that the reported values may be used without reservation. Various data qualifier codes are used by the laboratory to denote specific information regarding the analytical results. The data validation process is intended to evaluate the data on a technical basis. The data package also was subjected to an internal laboratory quality review prior to submission to Earth Tech for data validation.

During the validation process, laboratory-qualified and unqualified data are verified against all available supporting documentation. Based on this evaluation, qualifier codes may be added, deleted or modified by the data user. Final results are therefore, either qualified or unqualified. Validator-qualified results are annotated with the following codes in accordance with the Functional Guidelines:

U The constituent was analyzed for, but was not detected above the level of the associated analytical reporting limit. The associated value is either the sample quantitation limit or the sample detection limit.

- The analyte was positively identified: the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Details of the semivolatile data validation findings and conclusions are provided in the following sections of this report:

- 1. Holding Times
- 2. GC/MS Tuning
- 3. Calibration
  - A. IC
  - B. CC
- 4. Blanks
- 5. System Monitoring Compound Recovery
- 6. MS/MSD
- 7. Internal Standards Performance
- 8. Compound Identification
- 9. Constituent Quantitation and Reported Detection Limits
- 10. System Performance
- 11. Documentation
- 12. Overall Assessment

#### 1. HOLDING TIMES

All samples were initially extracted within the seven-day technical holding time and the five-day VTSR method holding time. The cooler temperature upon receipt at the laboratory was within the recommended temperature of 4°C +/- 2°C.

#### 2. GC/MS TUNING

The samples were analyzed on a single GC/MS system, identified as MSSV2. Two decafluorotriphenylphosphine (DFTPP) tunes were run representing the shift in which the standards and samples were analyzed. The DFTPP tunes are acceptable.

#### 3. CALIBRATION

#### A. Initial Calibration

One IC dated 3/19/04 was analyzed in support of the semivolatile sample analyses. Documentation of the IC was present in the data package, and the Relative Response Factor (RRF), as well as percent % RSD values were accurately reported for all target compounds. The criteria employed for technical data review purposes are different than those used in the method. The laboratory must meet a minimum RRF of 0.01; however, for data review purposes, a RRF criterion of "greater than or equal to 0.05" is applied to all semi-volatile compounds. The RRF's and the average RRF were within the acceptance criteria specified in the method for all reported analytes. The %RSD's were within the acceptance criteria specified in the method for all target analytes with the exception of Di-n-butylphthalate (32.0%), Di-n-octylphthalate (30.3%) and Diethylphthalate (41.8%). The lowest point of the calibration curve was dropped for Di-n-butylphthalate, Di-n-octylphthalate, and Diethylphthalate and the %RSD were recalculated. The recalculated %RSD were within the acceptance criteria of less than 30%. Di-n-octylphthalate and Diethylphthalate were not detected in the associated samples therefore data qualification was not required. The detected results for Di-n-butylphthalate were mitigated do to the presence of Di-n-butylphthalate in the associated method blank.

#### B. Continuing Calibration

One CC dated 3/26/04 was analyzed in support of the semivolatile sample analyses reported in the data submissions. The RRF's for the CC dated 3/26/04 were within the acceptance criteria. The percent difference (%D) between the average RRF's and the CC Response Factors for the CC dated 3/26/04 were within the acceptance criteria with the exception the %D for Di-n-butylphthalate and Di-n-octylphthalate. As per the National Functional Guidelines, if the %D exceeds the acceptance criteria qualify detected results for that analyte with "J" and non-detected results for that analyte with "UJ".

#### 4. BLANKS

One laboratory semivolatile method blank and field blank were analyzed with this SDG. The results are summarized below.

#### Method Blank (0322SBLK)

Di-n-butylphthalate was detected at a concentration of 0.604 ppb in method blank 0322SBLK.

#### Field Blank (SKGWFB1009)

There were no analytes detected above the MDL in the field blank collected on 3/18/04.

#### 5. SYSTEM MONITORING COMPOUND RECOVERY

All reported semivolatile system monitoring compounds were recovered within acceptable control limits.

#### 6. MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD)

Sample SKGWD611009 was submitted for MS MSD analysis. The MS/MSD percent recoveries were within the acceptance criteria with the exception of the 4-Nitorphenol. The %RPD between the MS/MSD are within the acceptance criteria. As per the National Functional Guidelines, no action is taken on MS/MSD data alone.

#### 7. INTERNAL STANDARDS PERFORMANCE

Internal standard areas and retention times were within acceptable limits for the reported semivolatile sample analyses.

#### 8. COMPOUND IDENTIFICATION

All reported semivolatile constituents were correctly identified with supporting chromatograms present in the data package.

#### 9. CONSTITUENT QUANTITATION AND REPORTED DETECTION LIMITS

Constituent quantitations were correctly calculated and reported for semivolatile constituents.

#### 10. SYSTEM PERFORMANCE

The analytical system appears to have been working well at the time of these analyses, based on the evaluation of the raw data submitted for review.

#### 11. DOCUMENTATION

The documentation appeared accurate and in order with the exception of the following: GCAL inadvertently left the Date Extracted off of the CLP Form 1's therefore the data validator inserted the Date Extracted on the CLP Form 1's. GCAI also inadvertently left the "B" qualifier off of the CLP Form 1's for the compound Di-n-butylphthalate therefore the data validator inserted a "B" qualifier in the "Q" column of the CLP Form 1's.

The "B" qualifier indicates that the analyte was detected in the associated method blank. On pages 210/212/213/214 sample SKGW07R1009 was not listed but 2 field blanks were listed while only one field blank submitted for analysis. GCAL corrected the mistake and reissued corrected pages.

### 12. OVERALL ASSESSMENT

The results are acceptable with the validator-added qualifiers.

## **DATA VALIDATION SUMMARY – SAMPLE DELIVERY GROUP 204031909 VOLATILE ORGANIC**

Validation of the GCMS volatile organics data, as prepared by Gulf Coast Analytical Laboratories (GCAL) for the samples collected from the Skinner Landfill site in March 2004, was conducted by Earth Tech using the National Functional Guidelines for Organic Data Review, (US EPA, October, 1999), as appropriate. The results were reported by GCAL under SDG 204031909.

GCAL#	Sample Description			
20403190901	SKGW581009			
20403190902	SKGW58DUP1009			
<b>204</b> 0319 <b>0903</b>	SKGW631009			
<b>204</b> 03190 <b>904</b>	SKGW611009			
<b>204</b> 03190 <b>9</b> 05	SKGW61MS1009			
20403190906	SKGW61MSD1009			
20403190908	SKGWFB1009			
20403190909	SKTB1009			
20403220801	SKGW06R1009			
20403220802	SKGW07R1009			
20403220803	SKGW591009			
20403220804	SKGW601009			
20403220805	SKGW62A1009			
20403220806	SKGW641009			
20403220807	SKGW651009			
20403220814	TRIP BLANK			

#### INTRODUCTION

Analyses were performed according to CLP-Organic Analysis Low Concentration OLC02.0 SOW. Results of the sample analyses are reported by the laboratory as either qualified or unqualified. Unqualified results mean that the reported values may be used without reservation. Various qualifier codes are used by the laboratory to denote specific information regarding the analytical results. The data validation process is intended to evaluate the data on a technical basis. The data package also was subjected to an internal laboratory quality review prior to submission to Earth Tech for data validation.

During the validation process. laboratory-qualified and unqualified data are verified against all available supporting documentation. Based on this evaluation, qualifier codes may be added, deleted or modified by the data user. Final results are therefore, either qualified or unqualified. Validator-qualified results are annotated with the following codes in accordance with the Functional Guidelines:

- U The constituent was analyzed for, but was not detected above the level of the associated analytical reporting limit. The associated value is either the sample quantitation limit or the sample detection limit.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ The analyte was not detected above the reported sample quantitation limit.

However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

The volatiles data validation findings and conclusions are provided in the following sections of this report:

- 1. Holding Times
- 2. GC/MS Tuning
- 3. Calibration
  - A. IC
  - B. CC
- 4. Blanks
- 5. System Monitoring Compound Recovery
- 6. MS/MSD
- 7. Laboratory Control Sample
- 8. Internal Standards Performance
- 9. Compound Identification
- 10. Constituent Quantitation and Reported Detection Limits
- 11. System Performance

- 12. Documentation
- 13. Overall Assessment

#### 1. HOLDING TIMES

All samples for Volatile Organic Compounds (VOC) analyses were analyzed within the 14-day technical holding time and the 10-day VTSR method holding time. The cooler temperature upon receipt at the laboratory was within the recommended temperature of 4°C +/- 2°C.

#### 2. GC/MS TUNING

The samples were analyzed on two GC/MS system, identified as MSV0 and MSV2. Two bromofluorobenzene (BFB) tunes were run. The BFB tunes are acceptable.

#### 3. CALIBRATION

#### A. Initial Calibration

Two IC's dated 3/21/04 and 3'23'04 were analyzed in support of the volatile sample analyses reported in the data submissions. The IC dated 3 21'04 was analyzed on instrument MSV0 and the IC dated 3/23/04 was analyzed on instrument MSV2. Documentation of the IC standards is present in the data package, and RRF's as well as %RSD values were accurately reported. The criteria employed for technical data review purposes are different than those used in the method. The laboratory must meet a minimum RRF of 0.01; however, for data review purposes, a RRF criterion of "greater than or equal to 0.05" is applied to all volatile compounds. The %RSD's were within the acceptance criteria specified in the method for all target analytes.

The RRF's and the average RRF for the IC dated 3/21/04 were within the acceptance criteria specified in the method for all target analytes with the exception of Acetone and 2-Butnaone. The RRF for the 1.0 ppb standard was below the acceptance criteria. The data validator dropped the 1.0 ppb standard for 1.2-Dibromo-3-chloropropane from the calibration curve and recalculated the average RRF and %RSD. 1,2-Dibromo-3-chloropropane was not detected in any of the associated samples therefore data qualification was not required.

The RRF's and the average RRF for the IC dated 3 23/04 were within the acceptance criteria specified in the method for all target analytes with the exception of Acetone.

As per the National Functional Guidelines, if any initial calibration RRF is less than 0.05, qualify positive results that have acceptable mass spectral identification with "J", using professional judgement, and non-detected analytes as unusable (R).

It should be noted that the laboratory did meet the minimum RRF of 0.01 for all target compounds.

#### B. Continuing Calibration

Two CC dated 3/21/04 and 3/23/04 were analyzed on instrument MSV2 in support of the volatile sample analyses reported in the data submissions.

#### CC dated 3/21/04

The percent difference (%D) between the average RRF's and the CC RF's were within the acceptance criteria for all target analytes. The CC RRF's were within the acceptance criteria specified in the method for all target analytes with the exception of Acetone and 2-Butnaone. The Acetone and 2-Butnaone results were previously qualified under section 3A above.

#### CC dated 3/23/04

The percent difference (%D) between the average RRF's and the CC RF's were within the acceptance criteria for all target analytes. The CC RRF's were within the acceptance criteria specified in the method for all target analytes with the exception of Acetone. The Acetone results were previously qualified under section 3A above.

#### 4. BLANKS

Two laboratory volatile method blanks, storage blank, two Trip Blanks, and a Field Blank were analyzed with this SDG. The results are summarized below.

#### MB153850

1,2-Dichlorobenzene and 1,3-Dichlorobenzene were detected at concentrations of 0.20 ppb and 0.12 ppb respectively in the method blank analyzed on 3/21/04.

#### MB153988

Acetone, 1,2-Dichlorobenzene and 1,3-Dichlorobenzene were detected at concentrations of 1.5 ppb, 0.21 ppb and 0.16 ppb respectively in the method blank analyzed on 3/23/04.

#### Storage Blank (CLP Storage Blank)

Methylene chloride, 1,4-Dichlorobenzene, and 1,2-Dichlorobenzene were detected at concentrations of 0.15 ppb, 0.096 ppb and 0.11 ppb respectively in the storage blank analyzed on 3/23/04.

#### Trip Blank (SKTB1009)

Methylene chloride was detected at a concentration of 0.23 ppb in the Trip Blank submitted for the sampling event that occurred on 3/18/04. The Methylene chloride detected in the trip blank was mitigated by the presence of Methylene chloride in the associated storage blank.

#### Trip Blank

Acetone and Methylene chloride were detected at concentrations 3.1 ppb and 0.24 ppb respectively in the Trip Blank submitted for the sampling event that occurred on 3/16-17/04. The Methylene chloride detected in the trip blank was mitigated by the presence of Methylene chloride in the associated storage blank.

#### Field Blank (SKGWFB1009)

Methylene chloride was detected at a concentration of 0.52 ppb in the Field Blank collected on 3/18/04. The Methylene chloride detected in the trip blank was mitigated by the presence of Methylene chloride in the associated storage blank.

#### 5. SYSTEM MONITORING COMPOUND RECOVERY

All reported volatile system monitoring compounds were recovered within acceptable control limits for all samples.

#### 6. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Sample SKGWD611009 was submitted for MS MSD analysis. The MS/MSD percent recoveries (60%-140%) and %RPD (<40%) between the MS MSD were within the acceptance criteria with the exception of the following:

Compound	MS	MSD	_ RPD
1,1-Dichloroethene	142	150	5
2-Hexanone	58	87	40
4-methyl-2-pentanone	67	102	41
Bromomethane	151	156	3
Carbon disulfide	145	145	0
Chloroethane	132	145	9
Chloromethane	135	146	8
Vinyl chloride	135	143	6

The results that are bolded exceeded the acceptance criteria. As per the National Functional Guidelines, no action is taken on MS MSD data alone.

#### 7. LABORATORY CONTROL SAMPLE

A LCS was analyzed in conjunction with this SDG. Recoveries were within the control limit for all constituents.

#### 8. INTERNAL STANDARDS PERFORMANCE

Internal Standard (IS) areas and retention times were within acceptable limits for the reported volatile sample analyses.

#### 9. COMPOUND IDENTIFICATION

All reported VOCs were correctly identified with supporting chromatograms present in the data package.

#### 10. CONSTITUENT QUANTITATION AND REPORTED DETECTION LIMITS

Constituent quantitations were correctly calculated and reported for VOCs with the exception of Ethylbenzene. The Ethylbenzene standard and detected results were originally quantitated using the incorrect quantitation ion (GCAL used 106 instead of 91). GCAL corrected the mistake and re-submitted the corrected pages that were affected in the laboratory report. The overall effect had no impact in the final result for Ethylbenzene.

#### 11. SYSTEM PERFORMANCE

The analytical system appears to have been working well at the time of these analyses, based on the evaluation of the raw data.

#### 12. **DOCUMENTATION**

The documentation appeared accurate and in order with the exception of the following: GCAL inadvertently transposed the area counts and retention times for IS Chlorobenzene-d5 and 1,4-Dichlorobenzene-d4. The data validator corrected the mistake by drawing arrows to indicate the correct area counts and retention times for IS Chlorobenzene-d5 and 1,4-Dichlorobenzene-d4.

#### 13. OVERALL ASSESSMENT

The results are acceptable with the validator-added qualifiers.

## DATA VALIDATION SUMMARY - SAMPLE DELIVERY GROUP 204031909 PESTICIDES

Validation of the Gas Chromatography (GC) pesticides data, as prepared by Gulf Coast Analytical Laboratories (GCAL) for the samples collected from the Skinner Landfill site in March 2004, was conducted by Earth Tech using the National Functional Guidelines for Organic Data Review, (US EPA, October, 1999), as appropriate. The results were reported by GCAL under SDG 204031909.

GCAL#	Sample Description
20403190901	SKGW581009
20403190902	SKGW58DUP1009
<b>204</b> 03190 <b>9</b> 03	SKGW631009
<b>204</b> 03190904	SKGW611009
<b>204</b> 03190905	SKGW61 <b>MS1009</b>
<b>204</b> 03190 <b>906</b>	SKGW61MSD1009
20403190908	SKGWFB1009
20403220801	SKGW06R1009
20403220802	SKGW07R1009
20403220803	SKGW591009
20403220804	SKGW601009
20403220805	SKGW62A1009
20403220806	SKGW641009

#### INTRODUCTION

Analyses were performed according to CLP-Organic Analysis Multi-Media, Multi-Concentration OLM04.2 SOW. Results of the sample analyses are reported by the laboratory as either qualified or unqualified. Unqualified results mean that the reported values may be used without reservation. Various qualifier codes are used by the laboratory to denote specific information regarding the analytical results.

The data validation process is intended to evaluate the data on a technical basis. The data package also was subjected to an internal laboratory quality review prior to submission to Earth Tech for data validation.

During the validation process, laboratory-qualified and unqualified data are verified against all available supporting documentation. Based on this evaluation, qualifier codes may be added, deleted or modified by the data user. Final results are therefore, either qualified or unqualified. Validator-qualified results are annotated with the following codes in accordance with the Functional Guidelines:

U The constituent was analyzed for, but was not detected above the level of the associated analytical reporting limit. The associated value is either the sample quantitation limit or the sample detection limit.

- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Details of the pesticide data validation findings and conclusions are provided in the following sections of this report:

- 1. Holding Times
- 2. Gas Chromatograph/Electronic Capture Detector (GC/ECD) Instrument Performance Check
- 3. IC
- 4. Calibration Verification
- 5. Blanks
- 6. Surrogate Spikes
- 7. Matrix Spike/Matrix Spike Duplicate (MS/MSD)
- 8. Pesticide Cleanup Checks
- 9. Target Compound Identification
- 10. Constituent Quantitation and Reported Detection Limits
- 11. Documentation
- 12. Overall Assessment

#### 1. HOLDING TIMES

All samples were extracted within the seven-day technical holding time and the five-day VTSR method holding time. The cooler temperature upon receipt at the laboratory was within the recommended temperature of 4°C +/- 2°C.

#### 2. GC/ECD INSTRUMENT PERFORMANCE CHECK

The Performance Evaluation Mixture (PEM) was analyzed at the correct frequency. Absolute retention times were within limits.

The percent resolution between adjacent peaks was within QC limits for the Pesticide Analyte Resolution Check. The percent resolution between adjacent peaks is within QC limits for the Performance Evaluation Mixtures (PEM). The percent breakdown for both 4,4-DDT and Endrin in each PEM was less than 20.0% for both GC columns. The combined percent breakdown for 4,4-DDT and Endrin in each PEM was less than 30.0% for both GC columns.

#### 3. INITIAL CALIBRATION

Individual standard mixtures A and B were analyzed at the correct frequencies and concentrations. The percent resolution criterion was met for Individual standard mixtures A and B.

The Percent Relative Standard Deviation (%RSD) of the calibration factors for each of the single component pesticides was less than 20%.

The multi-component target compounds were analyzed separately on both columns at a single concentration level. Retention times were determined from a minimum of three peaks.

#### 4. CALIBRATION VERIFICATION

Absolute retention times were within appropriate time retention windows

#### 5. BLANKS

One laboratory method blank and field blank were analyzed with this SDG. The results are summarized below.

#### Method Blank 154072

No constituents were detected above the laboratory-reporting limit. This blank corresponds to all samples extracted on 3/23/04

#### Field Blank (SKGWFB1009)

No constituents were detected above the laboratory-reporting limit in the field blank collected on 3/18/04.

#### 6. SURROGATE SPIKES

Decachlorobiphenyl (DCB) and tetrachloro-m-xylene (TCX) surrogate spike recoveries were within the acceptance criteria for all samples.

#### 7. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Sample SKGWD611009 was submitted for MS/MSD analysis. The MS/MSD percent recoveries were within the acceptance criteria. The %RPD between the MS/MSD are within the acceptance criteria.

#### 8. PESTICIDE CLEANUP CHECKS

Recoveries of all pesticides and surrogates were within 80-120% for the lot of Florisil cartridges utilized for pesticide cleanup with the exception of 4,4'-DDT (130%). There were no target compounds detected in the associated samples therefore no action was taken.

#### 9. TARGET COMPOUND IDENTIFICATION

All reported pesticide data were correctly identified with supporting chromatograms present in the data package.

#### 10. CONSTITUENT QUANTITATION AND REPORTED DETECTION LIMITS

Constituent quantitations were correctly calculated and reported for pesticide constituents.

#### 11. **DOCUMENTATION**

The documentation appeared accurate and in order with the exception of the following: GCAL inadvertently left the Date Extracted off of the CLP Form 1's therefore the data validator inserted the Date Extracted on the CLP Form 1's.

#### 12. OVERALL ASSESSMENT

The results are acceptable with the validator-added qualifiers.

### REFERENCES

US EPA, 1994. National Functional Guidelines for Inorganic Data Review.

US EPA, 1999. National Functional Guidelines for Organic Data Review.



## **ANALYTICAL RESULTS**

PERFORMED BY

**GULF COAST ANALYTICAL LABORATORIES, INC.** 

Report Date 04/08/2004

**GCAL Report** 204031909

Deliver To Earth Tech 200 Vine Street Wilder, KY 41076 859-442-2300

Attn Pat Higgins

Customer Earth Tech

Project Skinner Landfill

000001

#### CASE NARRATIVE

Client: Earth Tech Report: 204031909

Gulf Coast Analytical Laboratories received and analyzed the sample(s) listed on the sample cross-reference page of this report. Receipt of the sample(s) is documented by the attached chain of custody. This applies only to the sample(s) listed in this report. No sample integrity or quality control exceptions were identified unless noted below.

#### **VOLATILES MASS SPECTROMETRY**

In analytical batch 271073, the MS MSD exhibited sporadic recovery and RPD failures. The LCS/LCSD recoveries were acceptable.

In analytical batch 271108, no MS MSD was analyzed due to insufficient sample volume. All LCS/LCSD recoveries were acceptable.

#### **SEMI-VOLATILES MASS SPECTROMETRY**

The MS/MSD recoveries for 4-Nitrophenol were above the upper control limit. All other batch QC was acceptable.

#### SEMI-VOLATILE GAS CHROMATOGRAPHY

In the Pesticide analysis, the recovery for DDT was above control limits in the Florisil check, however DDT was not detected in the associated samples.

#### **METALS**

In the ILM04.1 - CLP Metals analysis for prep batch 271122, the MS recovery was outside the control limits for Selenium. The LCS recovery was within control limits. This indicates the analysis is in control and the sample is in control and the sample is affected by matrix interference. A post-digestion spike was performed on the QC sample for this batch with a recovery of 49%.

In the ILM04.1 - CLP Metals analysis for prep batch 271124, the MS recovery was outside the control limits for Selenium. The LCS recovery was within control limits. This indicates the analysis is in control and the sample is in control and the sample is affected by matrix interference. A post-digestion spike was performed on the QC sample for this batch with a recovery of 60%.

The Sample/Duplicate RPD for Cyanide, Total for prep batch 271113 is not applicable because the sample and or duplicate concentration is less than five times the reporting limit.

### Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with GCAL's Standard Operating Procedures.

#### **Common Abbreviations Utilized in this Report**

ND Indicates the result was Not Detected at the specified RDL

DO Indicates the result was Diluted Out

MI Indicates the result was subject to Matrix Interference Indicates the result was Too Numerous To Count

SUBC Indicates the analysis was Sub-Contracted
FLD Indicates the analysis was performed in the Field

PQL Practical Quantitation Limit
MDL Method Detection Limit
RDL Reporting Detection Limit

00:00 Reported as a time equivalent to 12:00 AM

#### Reporting Flags Utilized in this Report

J Indicates an estimated value

U Indicates the compound was analyzed for but not detected

B (ORGANICS) Indicates the analyte was detected in the associated Method Blank

B (INORGANICS) Indicates the result is between the RDL and MDL

Sample receipt at GCAL is documented through the attached chain of custody. In accordance with ISO Guide 25 and NELAC, this report shall be reporduced only in full and with the written permission of GCAL. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with the terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

CURTIS EKKER

DATA VALIDATION MANAGER
GCAL REPORT 204031909

THIS REPORT CONTAINS <u>637</u> PAGES.

## Report Sample Summary

GCAL ID	Client ID	Matrx	Collect Date/Time	Receive Date/Time
20403190901	SKGW581009	∴ at <b>e</b> r	03/1 <b>8/2004 11:48</b>	03/19/2004 09:45
20403190902	SKGW58DUP1009	Water	03/18/2004 12:08	03/19/2004 09:45
20403190903	SKGW631009	Water	03/18/2004 14:30	03/19/2004 09:45
20403190904	SKGW611009	Water	03/18/2004 15:35	03/19/2004 09:45
20403190905	SKGW61MS1009	Water	03/1 <b>8/2004 15:50</b>	03/19/2004 09:45
20403190906	SKGW61MSD1009	Water	03/18/2004 16:10	03/19/2004 09:45
20403190907	SKGW61DUP1009	Water	03/18/2004 16:10	03/19/2004 09:45
20403190908	SKGWFB1009	Water	03/18/2004 17:02	03/19/2004 09:45
20403190909	SKTB1009	Water		03/19/2004 09:45
20403190910	<b>SKGW581009</b> (DISS)	\Mat <b>e</b> r	03/18/2004 11:48	03/19/2004 09:45
20403190911	SKGW58DUP1009:DISS)	Water	03/18/2004 12:08	03/19/2004 09:45
20403190912	<b>SKGW631009</b> (DISS)	Water	03/18/2004 14:30	03/19/2004 09:45
20403190913	<b>SKGW611009</b> (DISS)	Water	03/18/2004 15:35	03/19/2004 09:45
20403190914	SKGW61MS1009(DISS)	Water	03/18/2004 15:50	03/19/2004 09:45
20403190915	SKGW61DUP1009 (DISS)	Water	03/18/2004 16:10	03/19/2004 09:45
20403190916	SKGWFB1009 (DISS)	Water	03/18/2004 17:02	03/19/2004 09:45
20403220801	SKGW06R1009	Water	03/16/2004 14:58	03/19/2004 09:45
20403220802	SKGW07R1009	₩ater	03/16/2004 15:52	03/19/2004 09:45
20403220803	SKGW591009 /	Water	03/17/2004 10:50	03/19/2004 09:45
20403220804	SKGW601009	Water	03/17/2004 11:15	03/19/2004 09:45
20403220805	SKGW62A1009	Water	03/17/2004 11:50	03/19/2004 09:45
20403220806	SKGW641009	Water	03/17/2004 14:10	03/19/2004 09:45
20403220807	SKGW651009 (	Water	03/1 <b>7/2004 14:40</b>	03/19/2004 09:45
20403220808	SKGW06R1009 (DISS)	Water	03/16/2004 14:58	03/19/2004 09:45
20403220809	SKGW07R1009 (DISS)	Water	03/16/2004 15:52	03/19/2004 09:45
20403220810	<b>SKGW591009</b> (DISS)	Water	03/17/2004 10:50	03/19/2004 09:45
20403220811	<b>SKGW601009</b> (DISS)	Water	03/17/2004 11:15	03/19/2004 09:45
20403220812	SKGW62A1009 (DISS)	Water	03/1 <b>7/2004 11:50</b>	03/19/2004 09:45
20403220813	<b>SKGW641009</b> (DISS)	Water	03/17/2004 14:10	03/19/2004 09:45
20403220814	TRIP BLANK	Water	03/17/2004 00:00	03/19/2004 00:00

#### 1A VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

	VOLATILE OR	GANIC	S ANALYSIS DATA	onee i		SKGW581009
Lab Name: GC	AL Contrac	:t:				
Lab Code: LAC	24 Case No.:				SDG No.: 20403	31909
Matrix: (soil/wate	r) <u>Water</u>					
Sample wt/vol:	25 (g/ml) mL		Lab Sample ID:	204031909	01	
Level: (low/med)			Lab File ID: 20	40321/T0692		· · · · · · · · · · · · · · · · · · ·
	dec.		Date Collected:	03/18/04	Time:	1148
	3-624-30M ID: .53		Date Received:			
<del></del>		(,,,,,,,				
Instrument ID: _I			Date Analyzed:			1941
Soil Extract Volu	me:	( µL )	Dilution Factor:	1	Analyst:	RSP
Soil Aliquot Volu	me:	( µL )	Prep Batch:		Analytica	al Batch: 271073
			Analytical Metho	d: OLCO 2	 1	
CONCENTRAT	TION UNITS: ug/L		,		·	
CAS NO.	COMPOUND		RESULT	Q	MDL	RL
71-55-6	1,1,1-Trichloroethane		1.0	U	0.010	1.0
79-34-5	1,1,2,2-Tetrachioroethane		1.0	U	0.010	1.0
79-00-5	1,1,2-Trichloroethane		1,0	Ü	0.010	1,0
75-34-3	1,1-Dichloroethane		1.0	U	0.010	1.0
75-35-4	1,1-Dichloroethene		1.0	U	0.010	1.0
120-82-1	1,2,4-Trichlorobenzene		1.0	U	0.010	1.0
106-93-4	1,2-Dibromoethane		1.0	Ü	0.010	1.0
95-50-1	1,2-Dichlorobenzene		1.0	U	0.010	1.0
107-06-2	1,2-Dichloroethane		1.0	U	0.010	1.0
540-59-0	1,2-Dichloroethene		1.0	U	0.010	1.0
78-87-5	1,2-Dichloropropane		1.0	U	0.010	1.0
541-73-1	1,3-Dichlorobenzene		1.0	U	0.010	1.0
106-46-7	1,4-Dichlorobenzene		1.0	U	0.010	1.0
78-93-3	2-Butanone		5.0	U	0.010	5.0
591-78-6	2-Hexanone		5.0	Ü	0.010	5.0
108-10-1	4-Methyl-2-pentanone		5.0	U	0.010	5.0
67-64-1	Acetone		5.0	Ü	0.010	5.0
71-43-2	Benzene		1.0	U	0.010	1.0
75-27-4	Bromodichloromethane		1.0	U	0.010	1.0
75-25-2	Bromoform		1.0	U	0.010	1.0
74-83-9	Bromomethane		1.0	U	0.010	1.0
75-15-0	Carbon disulfide		1.0	U	0.010	1.0
56-23-5	Carbon tetrachloride		1.0	U	0.010	1.0
108-90-7	Chlorobenzene		1.0	U	0.010	1.0
75-00-3	Chloroethane		1.0	Ü	0.010	1.0
67-66-3	Chloroform		1.0	U	0.010	1.0
74-87-3	Chloromethane		1.0	U	0.010	1.0
124-48-1	Dibromochloromethane		1.0	U	0.010	1.0
10061-01-5	cis-1,3-Dichloropropene		1.0	U	0.010	1.0
10061-02-6	trans-1,3-Dichloropropene		1.0	U	0.010	1.0
100-41-4	Ethylbenzene		1.0	U	0.010	1.0
75-09-2	Methylene chloride		2.0	U	0.010	2.0
3 CH A7 6	INDEAN CONTRACTOR				0.010	. 7 ()

## 14

	VO	ATHE ORGANI	TA OS ANALYSIS DATA :	QUEET		SAMPLE NO.
Lab Name: G		Contract		SHELI		SKGW581009
	024 Case No.:		SAS No		SDG No.: 20403	11909
Matrix: (scil/wal	ter) Water					
ample wt/vol:	25 (g/mi) mL		Lab Sample ID:	2040319090	1	
evet (low/med	n		Lab File iD: 20	40321/ <b>T069</b> 2		
6 Maisture: not	l dec.		Date Collected:	03/18/04	Time: 1	148
GC Column: _0	08-624-30M ID:	.53 (mm)	Date Received:	03/19/04		
nstrument ID:	MSV0		Date Analyzed:	03/21/04	Time: _1	941
oil Extract Vol	ume:	(pL)	Dilution Factor:	1	Analyst:	RSP
ail Aliquot Val.	ume:	(µL)	Prep Batch:		Analytica	al Batch: <u>271073</u>
CONCENTRA	ITION UNITS: Jg/L		Analytical Metho	d OLCO 2.1		
CAS NO.	COMPOUND		RESULT	Q	MDL	RL
127-18-4	Tetrachioroethene		1.3	U	0.010	1.0
106-88-3	Taluene		: :	U	0.010	1.0
79-01-6	Trichloroethene			U	0.010	1.0
75-01-4	Vinyl chloride			U	0.010	1.0

1330-20-7

Xylene (total

1.0

0.010

# 1E VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

SA	MPLE NO.
	SKGW581009

				J	1011001000
Lab Name: GCAL	_Contract:				
Lab Code: LA024 Case No.:		SAS No.:		SDG No.: 2	04031909
Matrix: Water		Lab Sample iD:	2040319090	1	<del></del>
Sample wt/vol: Units:		Lab File ID: 20-	40321/T0692		
Level: (low/med)		Date Collected:	03/18/04	Time:	1148
% Moisture: not dec.		Date Received:	03/19/04		····
GC Column: DB-624-30M ID: .25	(mm)	Date Analyzed:	03/21/04	Time:	1941
Instrument ID: MSV0	<del></del>	Dilution Factor:	1	Analy	st: RSP
Soil Extract Volume:	(μL)				
Soil Aliquot Volume:	(µL)				
Number TICs Found: 0 CONCENTRATION UNITS: CAS NO. COMPOUND		RT	EST.	CONC.	Q
1. No tics detected			<u> </u>		

#### VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SKGW58DUP1009 Lab Name: GCAL Contract: Lab Code: LA024 Case No.: S4S No. SDG No.: 204031909 Matrix (soil/water) Water Sample wt/vot: 25 (3/mi) mt. Lab Sample ID: 20403190902 Level: (lowfred) Lab File ID: 2040321/T0688 % Moisture: not dec. Date Collected: 03/18/04 Time: 1208 GC Column: <u>D8-624-30M</u> !D: \_.53 (mm) Date Received: 03/19/04 Instrument ID: MSV0 Date Analyzed: 03/21/04 Time: 1805 \_\_\_\_\_(uL: Soil Extract Volume: Dilution Factor: 1 Analyst: RJO Sail Aliquot Valume: \_\_\_(pl.) Prep Batch: Analytical Batch: 271073 Analytical Method: OLCO 2.1 CONCENTRATION UNITS: ug/L CAS NO. COMPOUND RESULT Q MDL RL \*.D 0.010 71-55-6 1.1.1-Trichloroethane 1.0 79-34-5 1,1,2,2-Tetrachioroethane • Ħ 0.010 1.0 79-00-5 1,1,2-Trichioroethane . . U 0.010 1.0 75-34-3 1 1-Dichiomethane u 0.010 10 75-35-4 1,1-Dichloroethene 0.010 11 1.0 120-82-1 1,2,4-Trich orbbenzene υ 0.010 1.0 106-93-4 ٠. ( U 0.010 1.0 1.2-Dibromoethane 95-50-1 0.010 1,2-Dichlorobenzene ٠. ر ũ 1.0 107-06-2 1,2-Dichloroethane ٠. Ū 0.010 1.0 540-59-0 1,2-Dichloroethene 0.010 1.0 78-87-5 1,2-Dichloropropane ū 0.010 1.0 541-73-1 1,3-Dichlorobenzene U 0.010 1.0 106-46-7 1,4-Dichlorcoenzene IJ 0.010 1.0 78-93-3 5.0 Ū 0.010 5.0 R 2-Butanone 591-78-6 2-Hexanone 5 0 Ū 0.010 5.0 106-10-1 4-Methyl-2-pentanone £ . Ü 0.010 5.0 67-64-1 Acetone 5.0 Ū 0.010 50 71-43-2 Benzene 1.0 u 0.010 1.0 75-27-4 Bromodichloromethane 1.0 Ū 0.010 1.0 75-25-2 Bromoform Ū 0.010 1.0 74-83-9 0.010 Bromometrace 11 10 75-15-0 Carbon disulfice Ū 0.010 1.0 56-23-5 Carbon tetrachionde Ū 0.010 1.0 106-90-7 Chlorobenzene U 0.010 1.0 75-00-3 Chloroethane Ü 0.010 1.0 67-66-3 Chloroform U 0.010 1.0 74-87-3 Chloromethane U 0.010 1.0 124-48-1 Dibromochioromethane • ( Ü 0.010 1.0 10061-01-5 cis-1.3-Dich-propropene 1.0 Ü 0.010 10 10061-02-6 trans-1,3-Dict cropropene ٠ ر u 0.010 1.0 100-41-4 **Ethylbenzere** : ( Ü 0.010 1.0 75-09-2 Methylene chlonde 2.0 Ū 0.010 2.0 100-42-5 Styrene II 0.010

#### 1A VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

Lab Name: GCAL Contract:			SKG	W58DUP1009
	SAS No.:		o.: <u>2040319</u>	09
Matrix: (soil/water) Water				
Sample wt/vol: 25 (g/ml) mL	Lab Sample ID:	20403190902		
Level: (low/med)	Lab File ID: 2040	0321/T0688		
% Moisture: not dec.	Date Collected:	03/18/04	Time: 120	8
GC Column: DB-624-30M ID: .53 (mm)	Date Received:	03/19/04		-
Instrument ID: MSV0	Date Analyzed:	03/21/04	Time: 180	5
Soil Extract Volume: ( µL )	Dilution Factor:	1	Analyst: R	JO
Soil Aliquot Volume: ( µL )	Prep Batch:		Analytical B	atch: 271073
CONCENTRATION UNITS: ug/L	Analytical Method:	: OLCO 2.1	<del></del>	
CAS NO. COMPOUND	RESULT	Q A	MDL	RL
127-18-4 Tetrachloroethene	1.0	U O	.010	1.0
108-88-3 Toluene	1.0	U 0	.010	1.0
79-01-6 Trichloroethene	1.0	U 0	.010	1.0
75-01-4 Vinyi chloride	1.0	U 0	.010	1.0
1330-20-7 Xylene (total)	1.0	U 0	.010	1.0

# 1E VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY (DENTIFIED COMPOUNDS

- III
SKGW58DUP1009

				1	
Lab Name: GCAL	_Contract:				
Lab Code: LA024 Case No.:		SAS No.		SDG No.: 2	04031909
Matric Water		Lab Sample iD:	2040319090	2	
Sample wifvoi: Units:		Lab File D 20	40321/10688		
Level: (low/med)		Date Collected:	03/18/04	Time:	1208
% Moisture: not dec.		Date Received:	03/19/04		
GC Column: D8-624-30M ID: _25	(m=)	Date Analyzed:	03/21/04	Time:	1805
Instrument ID: MSV0		Dilubon Factor:	1	Analys	t RJO
Soil Extract Volume:	(pL)				
Soil Aliquot Volume:	(µL)				
Number TICs Found: 0					
CONCENTRATION UNITS					
CAS NO. COMPOUND		RT	EST.	CONC.	Q
1. No tics detected			1		

#### 1A VOLATILE ORGANICS ANALYSIS DATA SHEET

	SAMPLE NO.
[	SKGW631009

	AL Contract:			<del></del>	
Lab Code: LA02	24 Case No.:	SAS No.:		SDG No.: 2040	31909
Matrix: (soil/water	r) Water				
Sample wt/voi: 2	25 (g/ml) mL	Lab Sample ID:	20403190	903	
_		Lab File ID: 20		······································	<del></del>
				<del></del>	4430
	ec			Time:	1430
GC Column: DB	-624-30M ID: .53 (mm)	Date Received:	03/19/04		
nstrument ID: M	4SV0	Date Analyzed:	03/21/04	Tlme:	1829
Soil Extract Volun	ne: (µL)	Dilution Factor:	1	Analyst:	RSP
	ne: (µL)	Prep Batch:			al Batch: 271073
son Anduor voidii	(μι)	•		<del></del>	ar Batch. 271073
CONCENTRATI	ION UNITS: ug/L	Analytical Metho	d: OLCO 2	2.1	
CAS NO.	COMPOUND	RESULT	Q	MDL	RL.
71-55-6	1,1,1-Trichloroethane	1.0	Ţυ	0.010	1.0
79-34-5	1,1,2,2-Tetrachloroethane	1.0	Ü	0.010	1.0
79-00-5	1,1,2-Trichloroethane	1.0	U	0.010	1.0
75-34-3	1,1-Dichloroethane	1.0	U	0.010	1.0
75-35-4	1,1-Dichloroethene	1.0	U	0.010	1.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.010	1.0
106-93-4	1,2-Dibromoethane	1.0	U	0.010	1.0
95-50-1	1,2-Dichlorobenzene	1.0	U	0.010	1.0
107-06-2	1,2-Dichloroethane	1.0	U	0.010	1.0
540-59-0	1,2-Dichloroethene	1.0	U	0.010	1.0
78-87-5	1,2-Dichloropropane	1.0	U	0.010	1.0
541-73-1	1,3-Dichlorobenzene	1.0	U	0.010	1.0
06-46-7	1,4-Dichlorobenzene	1.0	U	0.010	1.0
78-93-3	2-Butanone	5.0	U	0.010	5.0
591-78-6 109-40-4	2-Hexanone	5.0	U	0.010	5.0
108-10-1 57-64-1	4-Methyl-2-pentanone	5.0	U	0.010	5.0
71-43-2	Acetone	1.0	U	0.010	5.0 1.0
75-27-4	Bromodichloromethane	1.0	U	0.010	1.0
75-25-2	Bromoform	1.0	Ü	0.010	1.0
74-83-9	Bromomethane	1.0	U	0.010	1.0
75-15-0	Carbon disulfide	1.0	υ	0.010	1.0
56-23-5	Carbon tetrachloride	1.0	Ü	0.010	1.0
108-90-7	Chlorobenzene	1.0	U	0.010	1.0
5-00-3	Chloroethane	1.0	Ū	0.010	1.0
67-66-3	Chloroform	1.0	Ü	0.010	1.0
4-87-3	Chloromethane	1.0	U	0.010	1.0
24-48-1	Dibromochloromethane	1.0	U	0.010	1.0
10061-01-5	cis-1,3-Dichlorog psec		U	0.010	1.0
0061-02-6	trans-1,3	1.0	U	0.010	1.0
00-41-4	Ethylbenzene	1.0	U	0.010	1.0
<b>5-09</b> -2	Methylene chloride	2.0	U	0.010	2.0
100-42-5	Styrene	1.0	U	0.010	1.0 <b>000028</b>

#### VOLATILE ORGANICS ANALYS SIDATA SHEET

SAMPLE NO.

	V004	ILE ONG A IIC	3 -41-L+3 3 D-11F	SHEET	:	SKGW631009
Lab Name: GO	CAL	Contract:				
Lab Code: LA	124 Case No.:		SAS No.:	;	SDG No.: <u>2040</u>	31909
Matrix: (soil/wate	er) Water					
Sample wt/vot:	25 (g/ml) mL		Lab Sample ID:	2040319090	13	
Level: (low/med)	)		Lab File D: 20	40321/T <b>0689</b>		
% Moisture: not	dec		Date Collected:	03/18/04	Time:	1430
GC Column: D	<b>8-624-30M</b> ID: 53	( <b>m</b> m):	Date Received:	03/19/04		
Instrument IO:	MSV0		Date Analyzed:	03/21/04	Time:	1829
Soil Extract Volu	me:	(µL)	Oilution Factor:	1	Analyst	RSP
Soil Aliquot Volu	me:	( pal. )	Prep Batch:		Analytic	al Batch: 271073
CONCENTRAT	TION UNITS ug/L		Analytical Metho	d: OLCO 2.1		
CAS NO.	COMPOUND		RESULT	Q	MDL	RL
127-18-4	Tetrachiorcethene		, • • •	U	0.010	1.0
106-88-3	Taluene		• :	U	0.010	1.0
79-01-6	Trichloroethene		• :	U	0.010	1.0
75-01-4	Vinyi chionce		- :	U	0.010	1.0
1330-20-7	Xylene (tota)			U	0.010	1.0

## 1E

## VOLATILE ORGANICS ANALYSIS DATA SHEET SAMPLE NO.

TENTATIVE	LY IDE	NTIFIED COMPOUN	DS	SH	(GW631009
Lab Name: GCAL Cont	ract:		·····		
Lab Code: LA024 Case No.:		SAS No.:		SDG No.: 2	04031909
Matrix: Water		Lab Sample ID:	2040319090	3	
Sample wt/vol: Units:		Lab File ID: 204	40321/T0689		
Level: (low/med)		Date Collected:	03/18/04	Time:	1430
% Moisture: not dec.		Date Received:	03/19/04	<del></del>	
GC Column: DB-624-30M ID: .25 (	mm)	Date Analyzed:	03/21/04	Time:	1829
Instrument ID: MSV0		Dilution Factor:	1	Analy:	st: RSP
Soil Extract Volume: (	μL )				
Soil Aliquot Volume: (	μL)				
Number TICs Found: 0 CONCENTRATION UNITS: CAS NO. COMPOUND		RT	FST	CONC.	Q
1. No tics detected			<del></del>		

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#### VOLATILE ORGANICS ANALYSIS DATA SHEET

SAM	4PL	Εħ	W)	

Lab Namer - CC4	U Contract				SKGW611009
	L Contract:				
Lab Code: LA02	4 Case No :	SAS No.:	SD	G No.: 20403	1909
Matrix: (soil/water)	Water				
Sample wt/val: 2	5 (g.m) <u>mL</u>	Lab Sample ID:	20403190904		
Levet (fow/med)		Lab File (D) 20	40321/ <b>T0682</b>		
% Maisture: not de	k	Date Collected:	03/18/04	Time: _1:	535
GC Column: DB-	<b>624-30M</b> - D: <u>53</u> (mm.	Date Received:	03/19/04		
Instrument ID: M	SV0	Date Analyzed:	03/21/04	Time: _1:	507
Soil Extract Volum	e:(µL)	Dilution Factor:	1	Analyst	RJO
Soil Aliquot Volum	¢: (με -	Prep Batch:		Analytical	Batch: 271073
CONCENTRATION	ON UNITS: uo/L	Analytical Metho	d: OLCO 2.1		
		RESULT	Q	MDL	RL
71-55-6	1,1,1-Trichioroethane	1.0	U	0.010	1.0
79-34-5	1,1,2,2-Tetrachioroethane	• 0	U	0.010	1.0
79-00-5	1,1,2-Trichioroethane	: :	U	0.010	1.0
75-34-3	1,1-Dichloroethane	• 5	U	0.010	1.0
75-35-4	1,1-Dichloroethene	• :	U	0.010	1.0
120-82-1	1,2,4-Trichiorobenzene	• :	U	0.010	1.0
106-93-4	1,2-Dibromoethane	• ;	U	0.010	1.0
95-50-1	1,2-Dichlorobenzene	• 0	U	0.010	1.0
107-06-2	1,2-Dichloroefhane	• (	U	0.010	1.0
540-59-0	1,2-Dichloroethene	• (	U	0.010	1.0
<b>78-67</b> -5	1,2-Dichioropropane		U	0.010	1.0
541-73-1	1,3-Dichlorocenzene		<del></del>	0.010	1.0
106-46-7	1,4-Dichlorobenzene		U	0.010	1.0
78-83-3	2-Butanone		U	0.010	
591-78-6			U		
108-10-1	<del></del>				
67-64-1			<del></del>		
71-43-2			<del></del>		
75-27-4					
75-25-2					
74-83-0			·	_	
75-15-0					
56-23-5	<del></del>				
108-90-7					
75-00-3		•			
67-66-3	<del></del>				
74-87-3					
124-48-1					
10061-01-5					
10061-02-6	<del></del>	<del></del>			
100-41-4	<del> </del>			<del> </del>	
75-09-2					
100-42-5	Analysical Method: OLCO 2.1				

#### 1A VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

l ah Nama. C	OAL C	te t-				SKGW611009	
<del></del>		ontract:					
Lab Code: LA	Case No.:	·	SAS No.:		SDG No.: 2040	31909	
Matrix: (soil/wat	ter) Water	_ <del>,</del>					
Sample wt/vol:	25 (g/ml) mL		Lab Sample ID:	2040319090	)4		
Level: (low/med	i)		Lab File ID: 20	40321/T0682			
% Moisture: not	t dec.		Date Collected:	03/18/04	Time:	1535	
	DB-624-30M ID: .53		Date Received:	03/19/04			
Instrument ID:	MSV0		Date Analyzed:	03/21/04	Time:	1507	
Soil Extract Vol	ume:	(µL)	Dilution Factor:	1	Analyst	RJO	
Soil Aliquot Volu	ume:	(µL)	Prep Batch:		Analytical Batch: 271073		
CONCENTRA	ATION UNITS: ug/L		Analytical Metho	d: OLCO 2.1	·		
CAS NO.	COMPOUND		RESULT	Q	MDL	RL	
127-18-4	Tetrachloroethene		1.0	U	0.010	1.0	
108-88-3	Toluene	<del></del>	1.0	U	0.010	1.0	
79-01-6	Trichioroethene		1.0	U	0.010	1.0	
75-01-4	Vinyl chloride		1.0	U	0.010	1.0	
1330-20-7	Xylene (total)		1.0	U	0.010	1.0	

#### · E VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY DENT FIED COMPOUNDS

Contract:

Case No.: SAS No.:

ANALYSIS DATAIS NTIFIED COMPOUN		SAMPLE NO. SKGW611009
SAS No.:		SDG No.: 204031909
Lab Sample ID:	2040319090	)4
Lab File ID: 20	40321/T <b>068</b> 2	
Date Collected:	03/18/04	Time: 1535
Date Received:	03/19/04	
Date Analyzed:	03/21/04	Time: 1507
Dilution Factor:	1	Analyst RSP

Soil Aliquot Volume: (µL) Number TICs Found: 0 **CONCENTRATION UNITS** 

Sample wt/vol: Units:

GC Column: DB-624-30M (D: 25 (m-m)

Soil Extract Volume: \_\_\_\_\_ ( µL )

Lab Name: GCAL

Matrix: Water

Level: (low/med)

% Moisture: not dec.

Instrument ID: MSV0

Lab Code: LA024

RT EST. CONC. CAS NO. COMPOUND Q No tics detected

SAMPLE NO.

Lah Name: G0	CAL Contract:				SKGWFB1009	
				SDC No		
	024	AS No.:		SDG No.: 20403	31909	
Matrix: (soil/wate						
Sample wt/voi:	25 (g/ml) mL	Lab Sample ID:	2040319090	08		
Level: (low/med)	)	Lab File ID: 20	40321/T0690			
	dec	Date Collected:	03/18/04	Time: 1	702	
	B-624-30M ID: .53 (mm)	Date Received:		<del></del>		
Instrument ID:		Date Analyzed:	03/21/04	Time: 1	1853	
-	ıme: (μL)					
		Dilution ractor.		Analyst:		
Soil Aliquot Volume: (µL)		Prep Batch:		Analytica	Il Batch: 271073	
CONCENTRA	TION UNITS: ug/L	Analytical Metho	d: OLCO 2.	<u> </u>		
CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
71-55-6	1,1,1-Trichloroethane	1.0	T U T	0.010	1.0	7
79-34-5	1,1,2,2-Tetrachloroethane	1.0	<del>                                     </del>	0.010	1.0	┨
79-00-5	1,1,2-Trichloroethane	1.0	T U	0.010	1.0	┨
75-34-3	1,1-Dichloroethane	1.0	1-0-1	0.010	1.0	┥
75-35-4	1,1-Dichloroethene	1.0	<del>                                     </del>	0.010	1.0	7
120-82-1	1,2,4-Trichlorobenzene	1.0	1 0	0.010	1.0	7
106-93-4	1,2-Dibromoethane	1.0	U	0.010	1.0	┪ .
95-50-1	1,2-Dichlorobenzene	1.0	U	0.010	1.0	1
107-06-2	1,2-Dichloroethane	1.0	1 0	0.010	1.0	7
540-59-0	1,2-Dichloroethene	1.0	U	0.010	1.0	7
78-87-5	1,2-Dichloropropane	1.0	U	0.010	1.0	7
541-73-1	1,3-Dichlorobenzene	1.0	U	0.010	1.0	7
106-46-7	1,4-Dichlorobenzene	1.0	U	0.010	1.0	1
78-93-3	2-Butanone	5.0	U	0.010	5.0	R
591-78-6	2-Hexanone	5.0	U	0.010	5.0	7
108-10-1	4-Methyl-2-pentanone	5.0	Ü	0.010	5.0	]
67-64-1	Acetone	5.0	U	0.010	5.0	] R
71-43-2	Benzene	1.0	U	0.010	1.0	]
75-27-4	Bromodichloromethane	1.0	U	0.010	1.0	
75-25-2	Bromoform	1.0	Ü	0.010	1.0	]
74-83-9	Bromomethane	1.0	Ū	0.010	1.0	1
75-15-0	Carbon disulfide	1.0	U	0.010	1.0	1
56-23-5	Carbon tetrachloride	1.0	U	0.010	1.0	1
108-90-7	Chlorobenzene	1.0	U	0.010	1.0	1
75-00-3	Chloroethane	1.0	υ	0.010	1.0	1
67-66-3	Chloroform	1.0	U	0.010	1.0	1
74-87-3	Chloromethane	1.0	U	0.010	1.0	4
124-48-1	Dibromochloromethane	1.0	Ú	0.010	1.0	1
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.010	1.0	1
10061-02-6	trans-1,3-Dichloropropene	1.0	U	0.010	1.0	1
100-41-4	Culyinditzerie	1.0	U	0.010	1.0	┨
75-09-2	Methylane chloride	2.0 0.52	<u> </u>	0.010	2.0	1
100-42-5	Styrene	1.0	U	0.010	1.0	1

SAMPLE NO.

Lah Name: GC	<b>XAL</b> 0	ontract				SKGWFB1009
	24 Case No.:				OG No.: 20	4031909
Matric (soil/wate	r) Water					
Sample wt/volt	25 (gmi) <u>mL</u>		Lab Sample ID:	20403190908		
Level: (low/med)			Lab File ID: 20	40321/70690		
	Jec		Date Collected:	03/18/04	Time:	1702
	9-624-30M ID: 53		Date Received:	03/19/04		
Instrument ID: 1	usvo		Date Analyzed:	03/21/04	Time:	1853
Soil Extract Volum	me:	(hr)	Dilution Factor:	1	Analy	st: RSP
	ne:					ical Batch: 271073
CONCENTRAT	TION UNITS UD/L		Analytical Metho	d: OLCO 2.1		
CAS NO.	COMPOUND		RESULT	Q	MDL	RL
127-18-4	Tetrachioroethene		1.5	Ū	0.010	1.0
108-88-3	Toluene		• :	U	0.010	1.0
79-01-6	Trichloroethene			U	0.010	1.0
75-01-4	Vinyl chloride			υ	0.010	1.0
1330-20-7	Xylene (total)			U	0.010	1.0

## 1E TENTATIVELY IDENTIFIED COMPOUNDS VOLATILE ORGANICS ANALYSIS DATA SHEET

Oruti	I EE NO.
S	KGWFB1009

Lab Name: GCAL	_Contract:				
Lab Code: LA024 Case No.:		SAS No.:		SDG No.: 204	1031909
Matrix: Water		Lab Sample ID:	2040319090	8	
Sample wt/vol: Units:		Lab File ID: 204	40321/T0690		
Level: (low/med)		Date Collected:	03/18/04	Time:	1702
% Moisture: not dec.		Date Received:	03/19/04		
GC Column: DB-624-30M ID: .53	(mm)	Date Analyzed:	03/21/04	Time:	1853
Instrument ID: MSV0		Dilution Factor:	1	Analyst:	RSP
Soil Extract Volume:	(µL)				
Soil Aliquot Volume:	(µL)				
Number TICs Found: 1 CONCENTRATION UNITS:					
CAS NO. COMPOUND		RT	EST.	CONC.	Q
1 . 7446-09-5 Sulfur dioxide		1.953	] 1	97	

A company and the second second

Contract:

Lab Name: GCAL

	SAMPLE NO.	
	SKTB1009	
SDG No.: 20403	31909	
-		
209		
1		
Time:		
<u></u>		
Time: _1	916	
Analyst	RSP	
Analytica	M Batch: 271073	_
.1		_
MOL	RL	
0.010	1.0	
0.010	1.0	
0.010	1.0	
0.010	1.0	
0.010	1.0	
0.010	1.0	
0.010	1.0	
0.010	1.0	
0.010	1.0	
0.010	1.0	
0.010	1.0	
0.010	1.0	
0.010	1.0	
0.010	5.0	R
0.010	5.0	
0.010	5.0	
0.010	5.0	R
0.010	10	

Lab Code: LA0	24 Case No.:		SAS No.:		SDG No.: 20403	1909
Matric: (soil/wate	r) Water					
Sample wilvoit	25 (g/m) <u>mL</u>		Lab Sample ID:	20403190	209	
Level: (fow/med)			Lab File :0: 20	40321/T069	1	
% Moisture: not o	dec		Date Collected:		Time:	
GC Column: DE	3-624-30M ID: .53	(mm)	Date Received:	03/19/04		
Instrument ID:	MSV0		Date Analyzed:	03/21/04	Time: 1	916
Sali Extract Value	me:	( عاد )	Dilutor Factor:	1	Analyst	RSP
	ne:				Analytica	
	TION UNITS: JOAL		Analytical Metho			
CAS NO.	COMPOUND		RESULT	Q	MDL	RL
71-55-6	1,1,1-Trichloroethane		1.0	U	0.010	1.0
79-34-5	1,1,2,2-Tetrachioroethane		*.5	U	0.010	1.0
79-00-5	1,1,2-Trichloroethane		*.5	U	0.010	1.0
75-34-3	1,1-Dichioroethane		1.2	U	0.010	1.0
75-35-4	1,1-Dichioroethene		• :	U	0.010	1.0
120-82-1	1,2,4-Trichlorobenzene		- :	U	0.010	1.0
106-93-4	1,2-Dibromoethane		• :	U	0.010	1.0
95-50-1	1,2-Dichiorobenzene		• 0	U	0.010	1.0
107-08-2	1,2-Dichioroethane		• :	U	0.010	1.0
540-59-0	1,2-Dichloroethene		• ;	U	0.010	1.0
78-87-5	1,2-Dichioropropane		- :	·Ú	0.010	1.0
541-73-1	1,3-Dich:oroberizene			Ų	0.010	1.0
106-46-7	1,4-Dichlorobenzene		1.5	U	0.010	1.0
78-93-3	2-Butanone		£ :	U	0.010	5.0 <b>Q</b>
591-78-6	2-Hexanone		: 3	U	0.010	5.0
108-10-1	4-Methyt-2-pentanone		4.1	υ	0.010	5.0
67-64-1	Acetone		5.0	U	0.010	5.0
71-43-2	Benzene			U	0.010	1.0
75-27-4	Bromodichioromethane		. ;	U	0.010	1.0
75-25-2	Bramoform		• :	U	0.010	1.0
74-83-9	Bromomethane			U	0.010	1.0
75-15-0	Carbon disurfide			C	0.010	1.0
58-23-5	Carbon tetrachloride		1.5	C	0.010	1.0
108-90-7	Chlorobenzene		• :	U	0.010	1.0
75-00-3	Chloroethane			U	0.010	1.0
67-86-3	Chlaroform:			U	0.010	1.0
74-87-3	Chlorometriane			U	0.010	1.0
124-48-1	Dibromoch-cromethane		1.0	U	0.010	1.0
10061-01-5	cis-1,3-Dichioropropene		1.51	U	0.010	1.0
10061-02-6	trans-1,3-Dichioropropene		• 0	U	0.010	1.0
100-41-4	Elhylbenzene		1.0	U	0.010	1.0
75-0 <del>9-</del> 2	Methylene chlonde		3.000	J	0.010	2.0
100-42-5	Styrene			U	0.010	1.0
	<u> </u>					

513113F mm 000048

## 1A

	VOLATILE ORGANICS ANALYSIS DATA SHEET						
Lab Name: _G	CAL	Contract:			_	SKTB1009	
	024 Case No.: _				No.: 20403	1909	
Matrix: (soil/wate	er) Water	<del></del>					
Sample wt/vol:	25 (g/ml) mL		Lab Sample ID:	20403190909		····	
Level: (low/med)	)	<del></del>	Lab File ID: 20-	40321/T0691			
% Moisture: not	dec.		Date Collected:		Time:		
	B-624-30M ID: .5		Date Received:	03/19/04			
Instrument ID:	MSV0		Date Analyzed:	03/21/04	Time: _1	916	
Soil Extract Volu	ıme:	(µL)	Dilution Factor:	1	_ Analyst:	RSP	
Soil Allquot Volu	me:	(µL)	Prep Batch:		Analytica	Batch: 271073	
CONCENTRA	TION UNITS: ug/L		Analytical Metho	d: OLCO 2.1			
CAS NO.	COMPOUND		RESULT	Q	MDL	RL	
127-18-4	Tetrachloroethene		1.0	U	0.010	1.0	
108-88-3	Toluene		1.0	U	0.010	1.0	
79-01-6	Trichloroethene		1.0	Ü	0.010	1.0	
75-01-4	Vinyl chloride		1.0	U	0.010	1.0	
1330-20-7	Xylene (total)		1.0	U	0.010	1.0	

Virginia.

# 1E VOLATILE OR SANIOS ANALYS SIDATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO. SKTB1009

Lab Name: GCAL	Contract:				
Lab Code: LA024 Case No :		SAS No	s	DG No.: <u>20</u>	4031909
Matrix: Water		Lab Sample ID:	20403190909		
Sample we'vol: Units:		Lab File ID: 20	40321/T0691		
Level: (lowlmed)		Date Collected:		Time:	
% Moisture: not dec.		Date Received:	03/19/04		
GC Column: D8-624-30M ID: .53	(mm)	Date Analyzed:	03/21/04	Time:	1916
Instrument ID: MSV0		Dilution Factor:	1	Analys	RSP
Soil Extract Volume:	(µL)				
Soil Aliquot Volume:	(µL)				
Number TICs Found: :					
CONCENTRATION UNITS					
CAS NO. COMPOUND		RT	EST. C	ONC.	Q
1. 7445-09-5 Sulfur dioxide		- 378	8.7	7	

SAMPLE	NO
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Lah Name: GC	Contract				SKGW06R1009
	CAL Contract:				
	O24 Case No.:	SAS No.:		SDG No.: 20403	31909
Matrix: (soil/wate	er) Water	_			
Sample wt/vol:	25 (g/ml) mL	Lab Sample ID	204032208	301	
Level: (low/med)		Lab File ID: 2	040323/T255	В	
	dec		: 03/16/04	Time:	1458
	B-624-30M ID: .53 (n				
					<del></del>
Instrument ID: _	MSV2	Date Analyzed		<del></del>	1326
Soil Extract Volu	me: ( )	L) Dilution Factor:	1	Analyst:	RSP
Soil Aliquot Volu	me: ( )	ıL) Prep Batch:		Analytica	l Batch: 271108
		Analytical Meth		<del>'</del>	
CONCENTRA	TION UNITS: ug/L				
CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.010	1.0
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.010	1.0
79-00-5	1,1,2-Trichloroethane	1.0	U	0.010	1.0
75-34-3	1,1-Dichloroethane	1.0	U	0.010	1.0
75-35-4	1,1-Dichloroethene	1.0	υ	0.010	1.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.010	1.0
106-93-4	1,2-Dibromoethane	1.0	U	0.010	1.0
95-50-1	1,2-Dichlorobenzene	1.0	U	0.010	1.0
107-06-2	1,2-Dichloroethane	1.0	U	0.010	1.0
540-59-0	1,2-Dichloroethene	1.0	U	0.010	1.0
78-87-5	1,2-Dichloropropane	1.0	U	0.010	1.0
541-73-1	1,3-Dichlorobenzene	1.0	U	0.010	1.0
106-46-7	1,4-Dichlorobenzene	1.0	U	0.010	1.0
78-93-3	2-Butanone	5.0	U	0.010	5.0
591-78-6	2-Hexanone	5.0	υ	0.010	5.0
108-10-1	4-Methyl-2-pentanone	5.0	U	0.010	5.0
67-64-1	Acetone	5.0	U	0.010	5.0
71-43-2	Benzene	1.0	U	0.010	1.0
75-27-4	Bromodichloromethane	1.0	U	0.010	1.0
75-25-2	Bromoform	1.0	U	0.010	1.0
74-83-9	Bromomethane	1.0	U	0.010	1.0
75-15-0	Carbon disulfide	1,0	U	0.010	1.0
56-23-5	Carbon tetrachloride	1.0	U	0.010	1.0
108-90-7	Chlorobenzene	1.0	U	0.010	1.0
75-00-3	Chloroethane	1.0	U	0.010	1.0
67-66-3	Chloroform	1.0	U	0.010	1.0
74-87-3	Chloromethane	1.0	U	0.010	1.0
124-48-1	Dibromochloromethane	1.0	U	0.010	1.0
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.010	1.0
10061-02-6	trans-1,3-Dichloropropene	1.0	U	0.010	1.0
100-41-4	Ethylbenzene	1.0	U	0.010	1.0
75-09-2	Methylene chloride	2.0.016	J	0.010	2.0
100-42-5	Styrene	1.0	10	0.010	1.0

SAMPLE NO.	•
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Lah Namer G	CAL	Contract:				SKGW06R1009
	024 Case No.:		545 No		SDG No.: 2040	31909
Matric (soll/wal	ler) Water					
Sample w//vot	25 (g-mi) mL		Lab Sample ID:	2040322080	)1	
Levet: (low/med	)		Lab File D 20	40323/T2558		
% Moleture: not	l dec		Date Collected:	03/16/04	Time: _	1458
GC Column: D	08-624-30M ID: 53	(-DE)	Date Received:	03/19/04		
Instrument ID:	MSV2		Date Analyzed:	03/23/04	Time:	1326
Soil Edract Vol	ume:	(µL)	Dilution Factor:	1	Analyst	RSP
Soil Aliquot Vol.	.me:	(µ	Prep Batch		Analytic	al Batch: 271108
CONCENTRA	TION UNITS. Ug/L		Analytical Metho	d: OLCO 2.1	<u> </u>	·
CAS NO.	COMPOUND		RESULT	Q	MDL	RL
127-18-4	Tetrachloroethene		1.0	U	0.010	1.0
106-88-3	Toluene		10	U	0.010	1.0
79-01-6	Trichioroethene		1.0	U	0.010	1.0
75-01-4	Vinyl chlorde		4.5	U	0.010	1.0
1330-20-7	Xylane (total)		1:	U	0.010	1.0

# 1E VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

VOLA	TILE URGANIC	S ANALYSIS DATA S	HEE	SAMP	LE NO.
TE	NTATIVELY IDE	ENTIFIED COMPOUN	IDS	SK	GW06R1009
Lab Name: GCAL	Contract:				
Lab Code: LA024 Case No.:	<del></del>	SAS No.:		SDG No.: 20	04031909
Matrix: Water	······	Lab Sample ID:	2040322080	)1	
Sample wt/voi: Units:		Lab File (D: 20	40321/T2558		
Level: (low/med)		Date Collected:	03/16/04	Time:	1458
% Moisture: not dec.		Date Received:	03/19/04		
GC Column: DB-624-30M ID: .25	(mm)	Date Analyzed:	03/23/04	Time:	1327
Instrument ID: MSV2		Dilution Factor:	1	Analys	st: RSP
Soil Extract Volume:	(µL)				
Soil Aliquot Volume:	(µL)				
Number TICs Found: 0 CONCENTRATION UNITS:					
CAS NO. COMPOUND		RT	EST.	CONC.	Q
1 No tics detected			7		

SAMPLE NO.
SKGW07R1009

Lab Name: GC/	Contract:			·	
Lab Code: LA02	4 Case No.:	54 <b>5 No</b> :		SDG No.: 20403	31909
Matrix: (soil/water	Water				
Sample wt/vot: 2	(g.m) mL	Lab Sample ID:	204032208	02	
Level: (low/med)		Lab File (D: 20	40323/T2559	)	
% Moisture: not di	IC.	Date Collected:	03/16/04	Time: 1	552
GC Column: DB	<b>624-30M</b> 'D: .53 (mm)	Date Received:	03/19/04		
Instrument ID: M	SV2	Date Analyzed:	03/23/04	Time: 1	351
Soil Extract Volum	<b>6:</b> (µ1)	Dilution Factor:			RSP
Soil Aliquot Valum				<del></del>	Batch: 271108
CONCENTRATI	ON UNITS. Ug/L	Analytical Metho	d: OLCO 2	1	
CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-55-6	1,1,1-Trichloroethane	10	U	0.010	1.0
79-34-5	1,1,2,2-Tetrachioroethane	- 0	U	0.010	1.0
79-00-5	1,1,2-Trich-proethane	- 0	U	0.010	1.0
75-34-3	1,1-Dichloroechane	1.0	U	0.010	1.0
75-35-4	1,1-Dichloroemene	• •	U	0.010	1.0
120-82-1	1,2,4-Trichiorobenzane	• (	U	0.010	1.0
106-93-4	1,2-Dibromoethane	• ;	U	0.010	1.0
95-50-1	1,2-Dichloroperizane	• :	U	0.010	1.0
107-06-2	1,2-Dichloroethane	. t	U	0.010	1.0
540-50-0	1,2-Dichloroethene	4.5	Ü	0.010	1.0
78-87-5	1,2-Dichloropropane	4 5	U	0.010	1.0
541-73-1	1,3-Dichlorobenzene	• 5	U	0.010	1.0
106-46-7	1,4-Oichloropenzene	• :	Ü	0.010	1.0
78-93-3	2-Butanone	5.0	U	0.010	5.0
591-78-6 108-10-1	2-Hexanone	5:	U	0.010	5.0
67-64-1	4-Methyl-2-pentanone	5.0	U	0.010	5.0
71-43-2	Acetone Benzene	10	<del>- 0</del>	0.010	5.0
75-27-4	Bromodichloromethane	4.5	<del></del>	0.010	1.0
75-25-2	Bromoform	12	<del>- u</del>	0.010	1.0
74-63-9	Bromomethane	1.0	U	0.010	1.0
75-15-0	Carbon disulfide	10	<del>- Ŭ</del>	0.010	1.0
56-23-5	Carbon tetrachionde	• 3	Ū	0.010	1.0
108-90-7	Chlorobenzene	•	Ü	0.010	1.0
75-00-3	Chloroethane	1 (1	U	0.010	1.0
67-66-3	Chloroform	- 3	U	0.010	1.0
74-87-3	Chlorometrane	13	U	0.010	1.0
124-48-1	Dibromochioromethane		υ	0.010	1.0
10061-01-5	cis-1,3-Dichloropropene	1.3	U	0.010	1.0
10061-02-6	trans-1,3-Dichloropropene	• 3	U	0.010	1.0
100-41-4	Ethylbenzene	1.3	Ū	0.010	<del></del>
75-09-2	Mathylene chlonde	2.000	J	0.010	2.0 U
100-42-5	Styrene	_ <del></del>	U	0.010	1.0

	VOLAT	ILE ORGANIC	CS ANALYSIS DATA :	SHEET		SAMPLE NO.
Lab Name: GCAL		Contract:				SKGW07R1009
Lab Code: LA024	Case No.:		SAS No.:		SDG No.: 20403	31909
Matrix: (soil/water)	Water					
Sample wt/vol: 25	(g/ml) mL		Lab Sample ID:	2040322080	02	·····
Level: (low/med)			Lab File ID: 204	40323/T2559		
% Moisture: not dec.			Date Collected:	03/16/04	Time: _1	552
GC Column: DB-62		(mm)	Date Received:	03/19/04	·	
nstrument ID: MS\	/2		Date Analyzed:	03/23/04	Time: _1	351
Soil Extract Volume:		(µL)	Dilution Factor:	1	Analyst:	RSP
Soil Aliquot Volume:		(µL)	Prep Batch:		Analytica	il Batch: 271108
CONCENTRATION	N UNITS: ug/L		Analytical Metho	d: OLCO 2.1	<u> </u>	
CAS NO. C	OMPOUND		RESULT	Q	MDL	RL
127-18-4 T	etrachloroethene		1.0	U	0.010	1.0
108-88-3 T	oluene		1.0	U	0.010	1.0
70.01.6	richloroethene		1.0	11	0.010	1.0

1.0

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0.010

0.010

1.0

1.0

75-01-4

1330-20-7

Vinyl chloride

Xylene (total)

# VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.	
SKGW07R1009	

Lab Name: GCAL	_Contract:				
Lab Code: LA024 Case No.:		SAS No.:		SDG No.: 20	4031909
Matrix: Water		Lab Sample ID:	2040322080	2	
Sample wi/vol: Units:		Lab File (D: 20-	40323/T2559		
Level: (fowlmed)	<del></del>	Date Collected:	03/16/04	Time:	1552
% Moisture: not dec.		Date Received:	03/19/04		
GC Column: <u>D8-624-30M</u> ID: <u>.25</u>	(mm)	Date Analyzed:	03/23/04	Time:	1351
Instrument ID: MSV2	<del></del>	Dilution Factor:	1	Analysi	RSP
Soil Extract Volume:	(µc)				
Soil Aliquot Volume:	(µL)				
Number TICs Found: 0					
CONCENTRATION UNITS					
CAS NO. COMPOUND		RT	EST.	CONC.	Q
1. No tics detected	-		<u> </u>	L	

SA	MP	LΕ	NO
----	----	----	----

Lab Name: GCAL Contract:					SKGW591009	
	024 Case No.:			<del></del>	31909	
Matrix: (soil/wate			<del></del>	<u> </u>	<u> </u>	
Sample wt/vol:	25 (g/ml) mL	Lab Sample ID:	204032208	303		
Level: (low/med)	)	Lab File ID: 20	)40323/T256	1		
				<del></del>	4050	
	dec.	Date Collected:	03/17/04	Time: _	1050	
GC Column: D	B-624-30M ID: .53 (mm)	Date Received:	03/19/04			
instrument ID:	MSV2	Date Analyzed:	03/23/04	Time:	1440	
Soil Extract Volu	ıme: (µL)	Dilution Factor:	1	Analyst:	RSP	
	me: (µL)				al Batch: 271108	
	<del></del>	Analytical Metho		<del></del>		
CUNCENTRA	TION UNITS: ug/L					
CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
71-55-6	1.1,1-Trichloroethane	1.0	1 U	0.010	1.0	
79-34-5	1,1,2,2-Tetrachloroethane	1,0	1 0	0.010	1.0	
79-00-5	1,1,2-Trichloroethane	1.0	T U	0.010	1.0	
75-34-3	1,1-Dichloroethane	1.0	Ü	0.010	1.0	
75-35-4	1,1-Dichloroethene	1.0	Ü	0.010	1.0	
120-82-1	1,2,4-Trichlorobenzene	1.0	<del>1 û -</del>	0.010	1.0	
106-93-4	1,2-Dibromoethane	1.0	T U	0.010	1.0	
95-50-1	1.2-Dichlorobenzene	1.0	U	0.010	1.0	
107-06-2	1,2-Dichloroethane	1.0	U	0.010	1.0	
540-59-0	1.2-Dichioroethene	1.0	U	0.010	1.0	
78-87-5	1,2-Dichloropropane	1.0	U	0.010	1.0	
541-73-1	1,3-Dichlorobenzene	1.0	U	0.010	1.0	
106-46-7	1,4-Dichlorobenzene	1.0	U	0.010	1.0	
78-93-3	2-Butanone	5.0	U	0.010	5.0	
591-78-6	2-Hexanone	5.0	U	0.010	5.0	
108-10-1	4-Methyl-2-pentanone	5.0	υ	0.010	5.0	
67-64-1	Acetone	5.0	U	0.010	5.0	
71-43-2	Benzene	1.0	U	0.010	1,0	
75-27-4	Bromodichloromethane	1.0	U	0.010	1.0	
75-25-2	Bromoform	1.0	U	0.010	1.0	
74-83-9	Bromomethane	1.0	Ū	0.010	1.0	
75-15-0	Carbon disulfide	1.0	U	0.010	1.0	
56-23-5	Carbon tetrachloride	1.0	U	0.010	1.0	
108-90-7	Chlorobenzene	1.0	U	0.010	1.0	
75-00-3	Chloroethane	1.0	U	0.010	1.0	
67-66-3	Chloroform	1.0	U	0.010	1.0	
74-87-3	Chloromethane	1.0	U	0.010	1.0	
124-48-1	Dibromochloromethane	1.0	U	0.010	1.0	
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.010	1.0	
10061-02-6	trans-1,3-Dichloropropene	1.0	U	0.010	1.0	
100-41-4	Ethylbenzene	1.0	U	0.010	1.0	
75-09-2	Methylene chloride	2.00.20	J	0.010	2.0	
100-42-5	Styrene	1.0	U	0.010	1.0	

	VQI	4T" = 080 44"	CS ANALYSIS DATA	CULCT		SAMPLE NO.
		ATTLE ONGAN	CS THEFT S S DATA	SHEET	<del>,</del>	SKGW591009
Lab Name: G	ical	Contract:				<del></del>
Lab Code: LA	V024 Case No.:		S45 No.:		SDG No.: 20403	31909
Matrix: (soil/wa	ter) Water					
Sample without	25 (g/mt) mL		Lab Sample ID:	2040322080	13	
Level: (low/med	d)		Lab File ID: 20	40323/T2561	<u> </u>	
% Moisture: no	t dec.		Date Collected:	03/17/04	Time: _	1050
GC Calumn: _C	DB-624-30M ID:	53 (mm·	Date Received:	03/19/04		
Instrument ID:	MSV2		Date Analyzed:	03/23/04	Time:	1440
Soil Extract Vol	lume:	(JL:	Dilution Factor:	1	Analyst	RSP
Soit Aliquot Vol	ume:	(µL)	Prep Batch:		Analytica	il Batch: 271108
CONCENTRA	ATION UNITS ug/L		Analytical Metho	d: OLCO 2.1	<u> </u>	
CAS NO.	COMPOUND		RESULT	Q	MDL	RL
127-18-4	Tetrachloroethene		1.0	U	0.010	1.0
108-88-3	Toluene		. 0	U	0.010	1.0
79-01-6	Trichloroethene		1.0	U	0.010	1.0
75-01-4	Vinyl chloride		1:	U	0.010	1.0
1330-20-7	Xylene (xxia:)		1 :	U	0.010	1.0

# 1E VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

					LE NO.
TENTA	TIVELY IDE	ENTIFIED COMPOUN	DS	SI	KGW591009
Lab Name: GCAL	Contract:		-		
Lab Code: LA024 Case No.:	<del></del>	SAS No.:		SDG No.: 2	04031909
Matrix: Water		Lab Sample ID:	2040322080	3	
Sample wt/vol: Units:	···	Lab File ID: 20	0323/T2561		
Level: (low/med)		Date Collected:	03/17/04	Time:	1050
% Moisture: not dec.		Date Received:	03/19/04	· · · · · · · · · · · · · · · · · · ·	
GC Column: DB-624-30M ID: .25	(mm)	Date Analyzed:	03/23/04	Time:	1440
Instrument ID: MSV2	<del></del>	Dilution Factor:	1	Analy	st: RSP
Soil Extract Volume:	(µL)				
Soil Aliquot Volume:	(µL)				
Number TICs Found: 0 CONCENTRATION UNITS: CAS NO. COMPOUND		RT	FST	CONC.	Q
1. No tics detected		<del></del>	7		

CVC		

Lab Name: GC	AL Contract:			'		
Lab Code: LA0	24 Case No.:	SAS No.:	s	OG No.: 20403	1909	
Matrix: (soil/water	) Water	_				
Sample wt/vol:	25 (g/ml) mL	Lab Sample ID:	20403220804			
-		_	H0323/T2562			•
	ec.	Date Collected:	03/17/04	Time: 1	115	-
	-624-30M ID: 53 (mm)	Date Received:	03/19/04			•
Instrument ID: N				T 1		-
_		Date Analyzed:		<del></del>		-
Soil Extract Volun	ne: (µL)	Dilution Factor:				-
Soil Aliquot Valur	nec (µL)	Prep Batch		Analytica	Batch: 271108	<u></u>
CONCENTRATI	ION UNITS: ug/L	Analytical Metho	d: <u>OLCO 2.1</u>			
CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
71-55-6	1,1,1-Trichloroethane	1.5	U	0.010	1.0	$\supset$
79-34-5	1,1,2,2-Yetrachloroethane	• 5	U	0.010	1.0	7
79-00-5	1,1,2-Trichloroethane	• 5	U	0.010	1.0	$\neg$
75-34-3	1,1-Oichioroemane	1.5	U	0.010	1.0	7
75-35-4	1,1-Dichloroethene	• 5	U	0.010	1.0	7
120-82-1	1,2,4-Trichiomoenzene	1.0	U	0.010	1.0	7
106-93-4	1,2-Dibromoethane	: C	U	0.010	1.0	7
95-50-1	1,2-Dichloropenzene	10	U	0.010	1.0	ヿ
107-06-2	1,2-Dichloroemane	1.0	U	0.010	1.0	7
540-59-0	1,2-Dichloroemene	1.0	U	0.010	1.0	$\neg$
78-87-5	1,2-Dichloropropane	1.5	· Ü -	0.010	1.0	
541-73-1	1,3-Dichlorobenzene	1.0	U	0.010	1.0	7
106-46-7	1,4-Dichlorobenzane		U	0.010	1.0	
78-93-3	2-Butanone	<b>5</b> û	U	0.010	5.0	$\neg$
591-78-6	2-Hexanone	5.0	Ü	0.010	5.0	_
108-10-1	4-Methyl-2-pentanone	5.0	U	0.010	5.0	_
67-64-1	Acetone	5.022	Br	0.010	5.0	_ 9
71-43-2	Benzene		U	0.010	1.0	— , <b>y</b>
75-27-4	Bromodichloromethane	1 3	U	0.010	1.0	
75-25-2	Bromoform	1.0	U	0.010	1.0	_
74-83-9	Bromomethane	• ;	Ú	0.010	1.0	_
75-15-0	Carbon disurfide	1.0	U	0.010	1.0	_
56-23-5	Carbon tetractionde		Ü	0.010	1.0	_
106-90-7	Chlorobenzene		Ü	0.010	1.0	<del></del> i
75-00-3	Chloroethane	1.0	U	0.010	1.0	_
67-66-3	Chloroform	1,5	U	0.010	1.0	_
74-87-3	Chloromethane	1.0	U	0.010	1.0	7
124-48-1	Dibromoch-orometrane	1.0	U	0.010	1.0	$\dashv$
10061-01-5	cis-1,3-Dich/cropropene	•.0	<del>-</del>	0.010	1.0	7
10061-02-6	Irans-1.3-Dichloropropene	1.0	U	0.010	1.0	┪
100-41-4	Ethylbenzene	- c	Ü	0.010	1.0	$\dashv$
75-09-2	Methylene chlonde	1,0,018-	<del></del>	0.010	2.0	dα
100-42-5	Styrene		Ü	0.010	1.0	⊣~`
	, <u>-</u>					

SAM	PI	.E	NO

Lah Name: GCAI Contra	act:				SKGW601009
Lab Name: GCAL Contra  Lab Code: LA024 Case No.:		SAS No.:			
Matrix: (soil/water) Water					
Sample wt/vol: 25 (g/ml) mL		Lab Sample ID:	20403220	804	
Level: (low/med)		Lab File ID: 204	10323/T256	2	
% Moisture: not dec.		Date Collected:	03/17/04	Time:	1115
GC Column: DB-624-30M ID: .53		Date Received:	03/19/04		
Instrument ID: MSV2		Date Analyzed:	03/23/04	Time:	1505
Soil Extract Volume:	(µL)	Dilution Factor:	1	Analyst:	RSP
Soil Aliquot Volume:	( µL )	Prep Batch:		Analytic	al Batch: 271108
CONCENTRATION UNITS: ug/L		Analytical Method	: OLCO 2	2.1	
CAS NO. COMPOUND		RESULT	Q	MDL	RL
127-18-4 Tetrachloroethene		1.0	U	0.010	1.0
108-88-3 Toluene		1.0	U	0,010	1.0
79-01-6 Trichloroethene		1.0	U	0.010	1.0
75-01-4 Vinyl chloride		1.0	U	0.010	1.0
1330-20-7 Xylene (total)		1.0	U	0.010	1.0

	ICS - NALYSIS DATAS		AMPLE NO.
TENTATIVELY: Lab Name: GCAL Contract	DENT FIED COMPOUN	VDS	SKGW601009
ab Code: LA024 Case No.:	SAS No :	SDG No	204031909
latrix: Water	<u> </u>	20403220804	
ample wt/volt Units:	Lab File -D <b>20</b>	40323/T2562	
evel: (low/med)	Date Collected:	03/17/04 Ti	me: 1115
Maisture: not dec.	Date Received:	03/19/04	
C Column: D8-624-30M ID: _25 (mm	) Date Analyzed:	03/23/04 Ti	me: <u>1505</u>
drument ID: MSV2	Dilution Factor:	A	nalyst: RSP
ill Extract Volume: ( µL	)		
iil Aliquot Volume: ( µL	)		
Number TICs Found: 0 CONCENTRATION UNITS			
CAS NO. COMPOUND	RT	EST. CONC.	Q
No ses detected		T	

SAI	M٢	LE,	NO

	VOLATILE ORGA	ANICS ANALTSIS DAT	A SHEET	:	SKGW62A1009
Lab Name: G	CAL Contract:				
Lab Code: LAC	024 Case No.:	SAS No.:		SDG No.: 2040	31909
Matrix: (soll/wate	er) Water			-	
Sample wt/vol:	25 (g/ml) mL	Lab Sample IC	D: 20403220	305	
		<del></del>	2040323/T256	<del></del> 3	
				·- ·- · · ·	1150
	dec.			Time: _	1130
GC Column: D	B-624-30M ID: .53 (n			<del></del>	
Instrument ID:	MSV2	Date Analyzed	1: 03/23/04	Time: _	1530
Soil Extract Volu	me: ( j	uL) Dilution Factor	: 1	Analyst:	RSP
	me:()				al Batch: 271108
					27,7700
CONCENTRA	TION UNITS: ug/L	Analytical Met	nod: OLCO 2	1	
CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-55-6	1,1,1-Trichioroethane	1.0		0.010	
79-34-5	1,1,2,2-Tetrachloroethane	1.0	1 0	0.010	1.0
79-00-5	1,1,2-Trichloroethane	1.0	<del>                                     </del>	0.010	1.0
75-34-3	1,1-Dichloroethane	1.0	<del>                                     </del>	0.010	1.0
75-35-4	1,1-Dichloroethene	1.0	<del></del>	0.010	1.0
120-82-1	1,2,4-Trichlorobenzene	1.0	<del>                                     </del>	0.010	1.0
106-93-4	1,2-Dibromoethane	1.0	1 0	0.010	1.0
95-50-1	1,2-Dichlorobenzene	1.0	1 0	0.010	1.0
107-06-2	1,2-Dichloroethane	1.0	<del>                                     </del>	0.010	1.0
540-59-0	1,2-Dichloroethene	1.0	<del>                                     </del>	0.010	1.0
78-87-5	1,2-Dichloropropane	1.0	<del>i</del> ü	0.010	1.0
541-73-1	1,3-Dichlorobenzene	1.0	<del>                                     </del>	0.010	1.0
106-46-7	1,4-Dichlorobenzene	1.0	<del>- i - i</del>	0.010	1.0
78-93-3	2-Butanone	5.0	U	0.010	5.0
591-78-6	2-Hexanone	5.0	U	0.010	5.0
108-10-1	4-Methyl-2-pentanone	5.0	U	0.010	5.0
67-64-1	Acetone	5.0	U	0.010	5.0
71-43-2	Benzene	1.0	U	0.010	1.0
75-27-4	Bromodichloromethane	1.0	U	0.010	1.0
75-25-2	Bromolom	1.0	U	0.010	1.0
74-83-9	Brandan,	1.0	U	0.010	1.0
75-15-0	Carbon distrince	1.0		0.010	1.0
56-23-5	Cartion intrachtoride	1.0	U	0.010	1.0
108-90-7	Chloroberizene	1.0	U	0.010	1.0
75-00-3	Chloroethane	1.0	U	0.010	1.0
67-66-3	Chloroform	1.0	U	0.010	1.0
74-87-3	Chloromethane	1.0	U	0.010	1.0
124-48-1	Dibromochloromethane	1.0	U	0.010	1.0
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.010	1.0
10061-02-6	trans-1,3-Dichloropropene	1.0	U	0.010	1.0
100-41-4	Ethylbenzene	1.0	U	0.010	1.0
75-09-2	Methylene chloride	2.0_040	J	0.010	2.0
100-42-5	Styrene	1.0	U	0.010	1.0

	¥OC-1	ILE ONGANI	CS AMPLISS DATA	SHEE!	-	SKGW62A1009
Lab Name: GO	CAL	Contract:	····	<u></u>		
Lab Code: LA	024 Case No.:		SAS No.:		SDG No.: 20	4031909
Matrix: (soil/wat	er) Water					
Sample wt/vol:	25 (g/ml) mL		Lab Sample ID:	204032208	05	
Levet: (low/med)			Lab File Di 20	40323/T2563		
% Maisture: not	dec.		Date Collected:	03/17/04	Time:	1150
GC Column: D	<b>8-624-30M</b> ID: .53	(mm)	Date Received:	03/19/04		
Instrument IO:	MSV2		Date Analyzed:	03/23/04	Time:	1530
Soil Extract Volu	ime:	(µL)	Dution Factor:	1	Analy	st RSP
Soil <b>Aliquo</b> t Valu	rne:	(µL)	Prep Batch:		Analy	Scal Batch: 271108
CONCENTRA	TION UNITS Ug/L		Analytica: Metho	d: <u>OLCO 2</u>	1	
CAS NO.	COMPOUND		RESULT	Q	MDL	RL
127-18-4	Tetrachloroethene	<del> </del>	i · c	U	0.010	1.0
108-88-3	Toluene		·c	U	0.010	1.0
79-01-6	Trichloroethene			U	0.010	1.0
75-01-4	Vinyl chlonde		. (	U	0.010	1.0
1330-20-7	Xylene (tota:)		• 0	U	0.010	1.0

#### 1E

#### **VOLATILE ORGANICS ANALYSIS DATA SHEET** TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
SKGW62A1009
SDG No.: 204031909
2563
04 Time: 1150
04
04 Time: 1530
Analyst: RSP

Lab Name: GCAL	_Contract:	<del></del>	\		
Lab Code: LA024 Case No.:		SAS No.:	SDO	3 No.: 20	04031909
Matrix: Water		Lab Sample ID:	20403220805		
Sample wt/vol: Units:	<del>,</del>	Lab File ID: 20	40323/T2563	·	
Level: (low/med)		Date Collected:	03/17/04	Time:	1150
% Moisture: not dec.		Date Received:	03/19/04		
GC Column: DB-624-30M ID: .25	(mm)	Date Analyzed:	03/23/04	Time:	1530
Instrument ID: MSV2		Dilution Factor:	1	Analys	t: RSP
Soil Extract Volume:	(µL)				
Soil Aliquot Volume:	(µL)				
Number TICs Found: 0					
CONCENTRATION UNITS:					
CAS NO. COMPOUND		RT	EST. CO	NC.	Q
1. No tics detected					

275 544

CA	8.45	× =	NO
٠.	w	ᇆ	NO

Lab Name: G	CAL Contract:				SKGW641009
_	024 Case No.:		SDC.	No: 204	24000
				140 2040	131909
Mairtic (soil/wal	ter) Water				
Sample wt/vol:	25 (g <sup>m</sup> i) mL	Lab Sample ID:	20403220806		
Level: (low/med	n	Lab File ID: 20	40323/T2564		
% Moisture: not		Date Collected:	03/17/04	Time:	1410
CC Cohener I	<b>08-624-30M</b> :D: .53 (mm)	Date Received:		<b>-</b> ·	
Instrument ID:	MSV2	Date Analyzed:	03/23/04	_ Time: .	1554
Soil Extract Vol	ume: (µ_)	Dilution Factor:	1	Analyst	RSP
Soil Aliquot Volu		Prep Batch:		 Analytic	al Batch: 271108
•		Analytical Metho		_	
CONCENTRA	NTION UNITS. 091.	TOTAL MEDIO	- OEOO E.1		
CAS NO.	COMPOUND	RESULT	Q	MDL.	RL
71-55-6	In a de Vernieron	7 -: 5	· · · · · · · · · · · · · · · · · · ·		<del></del>
79-34-5	1,1,1-Trichloroethane 1,1,2-Tetrachioroethane	<del>                                     </del>	U	0.010	1.0
		<del></del>	<del> </del>	0.010	1.0
79-00-5	1,1,2-*rch groethane	70	l u	0.010	1.0
75-34-3	1,1-Dichloroethane	- 5	<del></del>	0.010	1.0
75-35-4			U U	0.010	1.0
120-82-1	1,2,4-Trichloroberzene	<u>; c</u>	U	0.010	1.0
106-93-4	1,2-Dibromoethane	10	U .	0.010	1.0
95-50-1	1,2-Dichloroberizane	+	U	0.010	1.0
107-06-2	1,2-Dichoroethane	<del></del>	U	0.010	1.0
540-59-0	1,2-Dichloroethene	-i- <del></del>	U	0.010	1.0
78-87-5	1,2-Dichloropropane	<del></del>	U	0.010	1.0
541-73-1	1,3-Dichlorobenzene	* 0	U	0.010	1.0
106-46-7	1,4-Dichiorobenzene		U	0.010	1.0
78-93-3	2-Butanone	50	U	0.010	5.0
591-78-6	2-Hexanone	5.0 5.0	U	0.010	5.0
108-10-1	4-Methyt-2-pentanone	50	U	0.010	5.0
67-64-1	Acetone	. 0	U	0.010	5.0
71-43-2	Benzene		<u> </u>	0.010	1.0
75-27-4	Bromod chloromethane	1 0 1 0	U	0.010	1.0
75-25-2	Bromoform		U	0.010	1.0
74-83-9 75-15-0	Bromomethane Coston der Sta	10	Ü	0.010 0.010	1.0
56-23-5	Carbon distriction de Carbon de Tachlonde	- <del></del>	<del></del>	0.010	1.0
108-90-7	Chlorobenzene	<del></del>	<del>- 0</del>	0.010	1.0
75-00-3	Chloroetrane	1:		0.010	1.0
67-86-3	Chiorofor:	1:		0.010	1.0
74-87-3	Chloromethane	10		0.010	1.0
124-48-1	Dibromochloromethane	10		0.010	
10061-01-5	cis-1,3-0:chioropropene	10		0.010	1.0
10061-01-5	trans-1,3-0/ct/vargargeene			0.010	1.0
10061-02-6		13			
	Ethylbenzene Mathuese obloods			0.010	2.0
75-09-2	Methylene chlonde	J.C. 049		0.010	
100-42-5	Styrene	Ü	υ	0.010	1.0

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SAMPLE NO.

Lab Name: GCAL Contract:	<del></del>	5KGW041009
Lab Code: LA024 Case No.:		SDG No.: 204031909
Matrix: (soll/water) Water		
Sample wt/vol: 25 (g/ml) mL	Lab Sample ID: 204032208	06
Level: (low/med)	Lab File ID: 2040323/T2564	<b>,</b>
% Moisture: not dec.	Date Collected: 03/17/04	Time: 1410
GC Column: DB-624-30M ID: .53 (mm)	Date Received: 03/19/04	
Instrument ID: MSV2	Date Analyzed: 03/23/04	Time: 1554
Soil Extract Volume: ( µL )	Dilution Factor: 1	Analyst: RSP
Soil Aliquot Volume: ( μL )	Prep Batch:	Analytical Batch: 271108
CONCENTRATION UNITS: ug/L	Analytical Method: OLCO 2	1
CAS NO. COMPOUND	RESULT Q	MDL RL
127-18-4 Tetrachloroethene	1.0 U	0.010 1.0
108-88-3 Toluene	1.0 U	0.010 1.0
79-01-6 Trichloroethene	1.0 U	0.010 1.0
75-01-4 Vinyl chloride	1.0 U	0.010 1.0
1330-20-7 Xylene (total)	1.0 U	0.010 1.0

VOLATILE ORG	IANICS ANALYSIS DATA	SHEET SAM	PLE NO.
	LY DENT FIED COMPOU	NDS S	KGW641009
		<del></del>	
Lab Code: LA024 Case No.:	S4S No.:	SDG No.: 2	204031909
Matric Water	Lab Sample (D:	20403220806	
Sample welvol: Units:	_ab File ID: 20	040323/T2564	<u>-</u>
Level: (lowlmed)	Date Collected:	03/17/04 Time	1410
% Molisture: not dec.	Date Received:	03/19/04	
GC Column: DB-624-30M ID: 25 (i	mm) Date Analyzed:	03/23/04 Time	1554
netrument ID: MSV2	Dilution Factor:	1 Analy	st: RSP
Sall Extract Volume:	μL)		
Soil Aliquot Volume:	µL >		
Number TICs Found: 3			
CONCENTRATION UNITS			
CAS NO. COMPOUND	RT	EST. CONC.	Q
1. No lics detected		T	T

SAMP	LΕ	N	0.
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lah Name: G	CAL Contract:			}	SKGW651009	
·	024 Case No.:		<del></del>	SDG No : 20403	31909	
Matrix: (soll/wat				20400	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Sample wt/vol:	25 (g/ml) mL	Lab Sample ID:	204032208	807		
	)	Lab File ID: 20	40323/T256	5		
	dec.	Date Collected:	03/17/04	Time: 1	1440	
	DB-624-30M ID: .53 (mm)	Date Received:				
Instrument ID:		Date Analyzed:	03/23/04	Time: 1	1619	
Soil Extract Volu	ume: ( µL )				RSP	
	ıme: (µL)	Prep Batch:		Analytica		
		Analytical Metho				
CONCENTRA	TION UNITS: ug/L	, mary noon mound	02002			
CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
71-55-6	1,1,1-Trichloroethane	1.0	TU	0.010	1.0	٦
79-34-5	1,1,2,2-Tetrachloroethane	1,0	U	0.010	1.0	7
79-00-5	1,1,2-Trichloroethane	1.0	U	0.010	1.0	┪
75-34-3	1,1-Dichloroethane	1.0	l ū	0.010	1.0	7
75-35-4	1.1-Dichloroethene	1.0	<del>  U                                   </del>	0.010	1.0	7
120-82-1	1,2,4-Trichlorobenzene	1.0	<del>- </del>	0.010	1.0	┪
106-93-4	1,2-Dibromoethane	1.0	Ū	0,010	1.0	1
95-50-1	1,2-Dichlorobenzene	1.0	Ü	0.010	1.0	1
107-06-2	1,2-Dichloroethane	1.0	U	0.010	1.0	1
540-59-0	1,2-Dichloroethene	1.0	Ū	0.010	1.0	1
78-87-5	1,2-Dichloropropane	1.0	U	0.010	1.0	ヿ
541-73-1	1,3-Dichlorobenzene	1.0	U	0.010	1.0	┪
106-46-7	1,4-Dichlorobenzene	1.0	U	0.010	1.0	1
78-93-3	2-Butanone	5.0	U	0.010	5.0	7
591-78-6	2-Нехаполе	5.0	U	0.010	5.0	1
108-10-1	4-Methyl-2-pentanone	5.0	U	0.010	5.0	1
67-64-1	Acetone	5.0	U	0.010	5.0	7 R
71-43-2	Benzene	1.0	U	0.010	1.0	7
75-27-4	Bromodichloromethane	1.0	U	0.010	1.0	7
75-25-2	Bromoform	1.0	U	0.010	1.0	7
74-83-9	Bromomethane	1.0	U	0.010	1.0	1
75-15-0	Carbon disulfide	1.0	U	0.010	1.0	1
56-23-5	Carbon tetrachloride	1.0	٦	0.010	1.0	1
108-90-7	Chlorobenzene	1.0	U	0.010	1.0	1
75-00-3	Chloroethane	1.0	U	0.010	1.0	1
67-66-3	Chloroform	1.0	U	0.010	1.0	1
74-87-3	Chloromethane	1.0	U	0.010	1.0	1
124-48-1	Dibromochloromethane	1.0	U	0.010	1.0	1
10061-01-5	cis-1,3-Dichloropropene	1.0	υ	0.010	1.0	1
10061-02-6	trans-1,3-Dichloropropene	1.0	U	0.010	1.0	1
100-41-4	Ethylbenzene	1.0	U	0.010	1.0	1
75-09-2	Methylene chloride	2.0.21	J	0.010	2.0	lu
100 42 5	Charana	10	11	0.040	1.0	1

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#### VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

Lab Namer C		Contract		•		SKGW651009
_	OCAL Case No :				No.: 204	031909
	ter) Water					
Sample wt/vol:	25 (g/m) mL		Lab Sample ID:	20403220807		
Level: (fow/med	d)		Lab File ID: 20	40323/T2565		
% Moësture: no	t dec.		Date Collected:	03/17/04	Time:	1440
GC Column: _[	08-624-30M ID: _	53 (mm)	Date Received:	03/19/04		
Instrument ID:	MSV2		Date Analyzed:	03/23/04	Time:	1619
Soil Extract Vol	lume:	(pL)	Dilution Factor:	1	Analysi	RSP .
Soil Aliquot Val	urne:	(µL)	Prep Batch		Analytic	cal Batch: 271108
CONCENTRA	ATION UNITS Ug/L		Analytical Metho	d: OLCO 2.1		
CAS NO.	COMPOUND		RESULT	Q	MDL	RL
127-18-4	Tetrachioroethene		• :	U	0.010	1.0
108-88-3	Toluene		1.0	U	0.010	1.0
79-01-6	Trichioroethene		1.3	U	0.010	1.0
75-01-4	Vinyl chloride		1.3	U	0.010	1.0
1330-20-7	Xylene (lictal)		70	U	0.010	1.0

# 1E VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

TENT	ATIVELY IDE	NTIFIED COMPOUN	IDS		SKGW651009
Lab Name: GCAL	_Contract:		· · · · · · · · · · · · · · · · · · ·		
Lab Code: LA024 Case No.:		SAS No.:		SDG No.:	204031909
Matrix: Water	<del></del>	Lab Sample ID:	2040322080	)7	
Sample wt/vol: Units:		Lab File ID: 20	40323/T2565		
Level: (low/med)		Date Collected:	03/17/04	Tìm	e: <u>1440</u>
% Moisture: not dec.		Date Received:	03/19/04		
GC Column: DB-624-30M ID: .25	(mm)	Date Analyzed:	03/23/04	Tim	e: <u>1619</u>
Instrument ID: MSV2	<del> </del>	Dilution Factor:	1	Ana	lyst: RSP
Soil Extract Volume:	(µL)				
Soil Aliquot Volume:	(µL)				
Number TICs Found: 0 CONCENTRATION UNITS:					
CAS NO. COMPOUND		RT	EST.	CONC.	Q
1 No tics detected	<del></del>				<u> </u>

CA			=	NO.
- 34	м	-		NU.

Lah Namer GC	AL Contract:				IRIF BLANK	
	24 Case No.:			2040	31909	
Matrix (soll/weter						
Sample wWol: _	25 (g/ml) mL	Lat Sample ID:	20403220614			
Level: (low/med)		Lab File ID: 20	40 <b>323/T2560</b>			
	BC.	Date Collected:	03/17/04	Time: (	0000	
	-624-30M ID: .53 (mm)	Date Received:	03/19/04	_		
instrument ID: N			03/23/04	Time:	1416	
				_		
	nec (µL)		1	_		
Soll Allquot Volun	nec (μL)	Prep Batch:		Analytica	al Balch: 271108	
CONCENTRAT	ION UNITS: ug/L	Analytical Metho	od: OLCO 2.1			
CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
71-55-6	1,1,1-Trichloroethane	1.0	U	0.010	1.0	7
79-34-5	1,1,2,2-Tetrachlomethane	1.0	U	0.010	1.0	7
79-00-5	1,1,2-Trichloroethane	1.0	U	0.010	1.0	7
75-34-3	1,1-Dichloroethane	1.0	U	0.010	1.0	]
75-35-4	1,1-Dichloroethene	1.3	U	0.010	1.0	]
120-82-1	1,2,4-Trichlorobenzene	•.3	U	0.010	1.0	]
106-93-4	1,2-Dibromoethane	1.0	U	0.010	1.0	]
95-50-1	1,2-Dichlorobenzene	1.0	Ü	0.010	1.0	]
107-06-2	1,2-Dichloroethane	1.0	U	0.010	1.0	
<del>540-59-</del> 0	1,2-Dichloroethene	1.0	U	0.010	1,0	]
78-87-5	1,2-Dichloropropane	1.0	U	0.010	1.0	]
541-73-1	1,3-Dichlorobenzer e	1.0	U	0.010	1.0	_
108-46-7	1,4-Dichlorobenzene	1.0	IJ	0.010	1.0	_
78- <del>0</del> 3-3	2-Butanone	5.0	υ	0.010	5.0	_
591-78-6	2-Hexanone	5.0	U	0.010	5.0	4
108-10-1	4-Methyl-2-pentanone	5.0	U	0.010	5.0	
67-64-1	Acetone	3.1	J	0.010	5.0	コ
71-43-2	Benzene	1.0	U	0.010	1.0	4
75-27-4	Bromodichioromethana	1.3	U	0.010	1.0	_
75-25-2	Bramoform	1.0	U	0.010	1.0	4
74-63-9	Bromomethane	1.0	U	0.010	1.0	4
75-15-0	Carbon disulfide	1.0	U	0.010	1.0	4
56-23-5	Carbon tetrachionoe	1.0	U	0,010	1.0	4
106-90-7	Chlorobenzene	1.0	U	0.010	1.0	4
75-00-3	Chloroethane	1.0	U	0.010	1.0	1
67-66-3	Chloroform	1.0	U	0.010	1.0	4
74-87-3	Chloromethane	1.0	U	0.010	1.0	4
124-48-1	Dibromochloromethane	1.0	U	0.010	1.0	4
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.010	1.0	4
10061-02-6	trans-1,3-Dichloro; opene	1.0	U	0.010	1.0	4
100-41-4	Ethylbenzene	1.0	U	0.010	1.0	lu
75-09-2	Mathylene chloride	2.0 2022	J	0.010	2.0	1~
100-42-5	Styrene	<b>•.3</b>	! บ ี่ ี	0.010	1.0	1

SAMPLE NO.

l ah Name: GC	ALC	ontract:				I RIP BLANK	
	24 Case No.:	<del></del>	SAS No.:		SDG No.: 20403	31909	
Matrix: (soil/wate	r) Water						
Sample wt/vol:	25 (g/ml) mL		Lab Sample ID:	2040322081	4		
Level: (low/med)			Lab File ID: 20	40323/T2560			
% Moisture: not o	lec		Date Collected:	03/17/04	Time: _(	0000	
GC Column: DE	3-624-30M ID: .53	(mm)	Date Received:	03/19/04			
Instrument ID: MSV2			Date Analyzed:	03/23/04 Time: 1416			
Soil Extract Volur	ne:	(µL)	Dilution Factor:	1	Analyst:	RSP	
Soll Aliquot Volum	ne:	(µL)	Prep Batch:		Analytica	al Batch: 271108	
CONCENTRAT	TON UNITS: ug/L		Analytical Metho	d: OLCO 2.1			
CAS NO.	COMPOUND		RESULT	Q	MDL	RL	
127-18-4	Tetrachlorcethene		1.0	U	0.010	1.0	
108-88-3	Toluene		1.0	U	0.010	1.0	
79-01-6	Trichloroethene		1.0	U	0.010	1.0	
75-01-4	Vinyl chlorida		1.0	U	0.010	1.0	
1330-20-7	Xylene (total)		1.0	T - U - T	0.010	1.0	

	T	RIP	BU	WK	

TENTAT VELY ID:	ENTIFIED COMPOUN	(DS	TRIP BLANK
Lab Name: GCAL Contract:			
Lab Code: LA024 Case No.:	SAS No.	SDG No.:	204031909
Matrix: Water	Lab Sample ID:	20403220814	
Sample wifvoit Units:	Lab File D 20	40323/T2560	
Level: (low/med)	Date Collected:	03/17/04 Time	: 0000
% Moisture: not dec.	Date Received:	03/19/04	- <u>-</u>
GC Column: DB-624-30M ID:53 (mm)	Date Analyzed:	03/23/04 Time	1416
Instrument ID: MSV2	Dilution Factor:	1 Anal	yst RSP
Soil Extract Volume: ( µL )			
Soil Aliquot Volume: ( µL )			
Number TICs Found: 1			
CONCENTRATION UNITS:			
CAS NO. COMPOUND	RT	EST. CONC.	Q
1. 7446-09-5 Sulfur dioxide	1,412	1.92	

Lab Name: GC	AL	Sample ID: _S	KGW58100	)9	
Lab Code: LA0	24 Case No.:	Contract:			
SAS No.:	SDG No.: 204031909	Lab File ID: 2	040326/850	023	
Matrix: Water		Lab Sample ID	: 2040319	0901	
Sample wt/vol:	1000 Units: mL	Date Collected	. 03/18/04	Time:	1148
-				<del></del>	1140
	A STAN	Date Received  Date Extracted		<del></del>	
% Moisture:	decanted: (Y/N)			<del></del>	
GC Column: DE	3-5MS-30M ID: .25 (mm)	Date Analyzed			1612
Concentrated Ext	tract Volume: 1000 (µL)	Dilution Factor	: 1	Analy	st: JAR3
Injection Volume:	1.0 (µL)	Prep Method:		<del></del>	
	//N) NpH:	Analytical Meth	nod: OLM	0 4.2	
		Instrument ID:	MSSV2		
CONCENTRATIO	ON UNITS: ug/L	Prep Batch:	271164	Analytical Ba	tch: 271781
CAS NO.	COMPOUND	RESULT	Q	MDL	PQL
95-95-4	2,4,5-Trichlorophenol	10.0	l U	0.010	10.0
88-06-2	2,4,6-Trichlorophenol	10.0	U	0.010	10.0
120-83-2	2,4-Dichlorophenol	10.0	U	0.010	10.0
51-28-5	2,4-Dinitrophenol	25.0	U	0.010	25.0
121-14-2	2,4-Dinitrotoluene	10.0	Ü	0.010	10.0
606-20-2	2,6-Dinitrotoluene	10.0	U	0.010	10.0
91-58-7	2-Chloronaphthalene	10.0	U	0.010	10.0
95-57-8	2-Chlorophenol	10.0	U	0.010	10.0
91-57-6	2-Methylnaphthalene	10.0	U	0.010	10.0
83-74-4	2-Nitroaniline	25.0	U	0.010	25.0
88-75-5	2-Nitrophenol	10.0	U	0.010	10.0
91-94-1	3,3'-Dichlorobenzidine	10.0	U	0.010	10.0
99-09-2	3-Nitroaniline	25.0	U	0.010	25.0
534-52-1	2-Methyl-4,6-dinitrophenol	25.0	U	0.010	25.0
59-50-7	4-Chloro-3-methylphenol	10.0	U	0.010	10.0
106-47-8	4-Chloroaniline	10.0	Ü	0.010	10.0
7005-72-3	4-Chlorophenyl-phenylether	10.0	U	0.010	10.0
106-44-5	4-Methylphenol (p-Cresol)	10.0	Ü	0.010	10.0
83-32-9	Acenaphthene	10.0	U	0.010	10.0
208-96-8	Acenaphthylene	10.0	Ü	0.010	10.0
120-12-7	Anthracene	10.0	ح	0.010	10.0
56-55-3	Benzo(a)anthracene	10.0	U	0.010	10.0
50-32-8	Benzo(a)pyrene	10.0	Ü	0.010	10.0
205-99-2	Benzo(b)fluoranthene	10.0	U	0.010	10.0
191-24-2	Benzo(g,h,i)perylene	10.0	U	0.010	10.0
207-08-9	Benzo(k)fluoranthene	10.0	U	0.010	10.0
111-91-1	Bis(2-Chloroethoxy)methane	10.0	C	0.010	10.0
111-44-4	Bis(2-Chloroethyl)ether	10.0	U	0.010	10.0
108-60-1	bis(2-Chloroisopropyl)ether	10.0	U	0.010	10.0
117-81-7	his/2-ethylhexyl)obthalate	10.0		0.010	10.0

Lab Name: GC	CAL	Sample ID: _5	SKGW58100	9		
Lab Code: LA	024 Case No.:	Contract:				
SAS No.:	SDG No.: 204031909	Lab File ID: _2	2040326/\$50	23	<del></del>	
Matrix: Water		Lab Sample ID	2040319	0901		
Sample wt/vot:	1000 Units: mL	Date Collected	1: 03/18/04	Time:	1148	_
Level: (low/med)		Date Received	: 03/19/04			
% Moisture:	decanted: (Y/N)	Date Extracted	1: _3 27	1104		_
GC Column: D	8-5MS-30M ID: .25 (mm)	Date Analyzed	03/26/04	Time:	1612	
Concentrated Ex	dract Volume: 1000 (µL	Dilution Factor	: 1	Analy	st: JAR3	
Injection Volume	κ (μL)	Prep Method:				
	Y/N) N pH:	Analytical Meth	nod: OLMC	14.2		_
		instrument 1D:	MSSV2			
CONCENTRATI	ON UNITS: Ug/L	Prep Batch:	271164	Analytical Bat	lch: 271781	_
CAS NO.	COMPOUND	RESULT	Q	MDL	PQL	
101-55-3	4-Bromophenys-phenylether	70 C	U	0.010	10.0	7
85-68-7	Butylbenzylonchalate	100	U	0.010	10.0	٦
86-74-8	Carbazole	•00	U	0.010	10.0	7
218-01-9	Chrysene	.::	U	0.010	10.0	7
84-74-2	Di-n-butylpht-alate	10.0	U	0.010	10.0	่∣น
117-84-0	Di-n-octylortha ate	10.0	U	0.010	10.0	่าน
53-70-3	Dibenz(a,h)anthracene	<b>-</b> 0.0	U	0.010	10.0	٦ ٔ
132-64-9	Dibenzoluran	10.0	U	0.010	10.0	7
84-66-2	Diethylphtha.ate	10.0	U	0.010	10.0	7
131-11-3	Oimethyl-phtha/ate	10.0	U	0.010	10.0	7
105-67-9	2.4-Dimethylonenol	10.0	U	0.010	10.0	7
206-44-0	Fluoranthere	10.0	U	0.010	10.0	7
86-73-7	Fluorene	10 7	U	0.010	10.0	7
118-74-1	Hexachiorobenzene	10.0	U	0.010	10.0	7
87-68-3	Hexachlorobutaciene	<b>1</b> 0 E	U	0.010	10.0	┪
77-47-4	Hexachlorocyclopentadiene	100	υ	0.010	10.0	٦.
57-72-1	Hexachloroemane	10.3	U	0.010	10.0	┥
193-39-5	Indeno(1,2,3-cc :pyrane	10.0	U	0.010	10.0	7
78-59-1	Isophorone	15.0	Ü	0.010	10.0	┪
91-20-3	Naphthalene	10.0	U	0.010	10.0	┪
100-01-6	4-Nitroaniine	25 :	U	0.010	25.0	┪
6-95-3	Nitroberizene	10.0	U	0.010	10.0	-
100-02-7	4-Nitrophenol	25 :	<del>- U</del>	0.010	25.0	-[
7-86-5	Pentachiorochenol	25 :	U	0.010	25.0	┥,
95-01-8	Phenanthrene	10.0	U	0.010	10.0	┥
108-95-2	Phenoi	10.0	U	0.010	10.0	4
29-00-0	Pyrane	10.0	U	0.010	10.0	-
21-64-7	N-Nitroso-o:-n-propylamine		U	0.010	10.0	-
6-30-6	N-Nitrosodigher-varrine	15.5	Ü	0.010	10.0	$\dashv$
6-48-7	o-Cresol	10.0	<del>- U</del>		10.0	4
<del></del>	U-C-GOU	12.4	U	0.010	10.0	

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#### 1F SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: GCAL	Sample ID: SKGW581009				
Lab Code: LA024 2 Case No.:	Contract:				
SAS No.: SDG No.: 204031909	Lab File ID: S5023				
Matrix: Water	Lab Sample ID: 20403190901				
Sample wt/vol: Units:	Date Collected: 03/18/04 Time: 1148				
Level: (low/med)	Date Received: 03/19/04				
% Moisture: not dec.	Date Extracted: 3/22/34				
GC Column: RTX-5MS-30 ID: .53 (mm)	Date Analyzed: 03/26/04 Time: 1612				
Concentrated Extract Volume: 1000 (µL)	Dilution Factor: 1 Analyst: RLW				
injection Volume: 1.0 (µL)	Prep Method:				
GPC Cleanup: (Y/N) N pH:	Analytical Method: SW-846 8270C				
	Instrument ID: MSSV2				
Number TICs Found: 0					
CONCENTRATION UNITS:					
CAS NO. COMPOUND	RT EST. CONC. Q				
1. No tics detected					

5/17/04

Lab Name: (	SCAL	Sample D	SKGW58DL	JP 1009			
Lab Code: U	A024 Case No.:	Contract					
SAS No.:	SDG No.: 204631909	Lab File Dr. 2040326/S5024					
Matric Wate	¥	Lat Sample ID: 20403190902					
Sample w//vot	1000 Units mil	Cate Octeded: 03/18/04 Time: 1208					
Level: (low/me	d)	Date Received	5: 03/19/04				
% Moisture:	pecanted: (Y/N)	Date Extracted: 3122154					
	DB-5MS-30M 1D: .25 (mm)	Date Analyzed: 03/26/04 Time: 1640					
-	Extract Volume: 1000 (µL)	Dilution Factor: 1 Analyst: JAR3					
	ne: 'C (at.)	Prep Method:					
		Analytical Met	hod: OLM	0 4.2			
GPC Cisanup.	(Y/N) N pH:			<del></del>	<del> </del>		
CONCENTRAT	TION UNITS Ug/L	Prep Batch: 271164 Analytical Batch: 271			tch: 271781		
CAS NO.	COMPOUND	RESULT		MDL	PQL		
95-95-4	2.4,5-Trich prophenal	7.5.5	<del>υ</del>	0.010	10.0		
88-06-2	2,4,6-Trichicrophenal	100	Ü	0.010	10.0		
120-83-2	2,4-Dichlerseneral	·: c	U	0.010	10.0		
51-28-5	2.4-Dinitrochera	25.3	U	0.010	25.0		
121-14-2	2,4-Dinitrataluene	·: 3	U	0.010	10.0		
606-20-2	2,6-Dinitrotoisene	12.3	U	0.010	10.0		
91-58-7	2-Chloronaghthalene	10.0	U	0.010	10.0		
95-57-8	2-Chlorophenoi	•6.3	U	0.010	10.0		
91-57-6	2-Methylnaphthalene	· £ 2	U	0.010	10.0		
88-74-4	2-Nitroar whe	15.3	U	0.010	25.0		
86-75-5	2-Nitrophenoi	.5.5	U	0.010	10.0		
91-04-1	3,3'-Dichlorobenzidine	•6.9	U	0.010	10.0		
99-09-2	3-Nitroan-ine	2f 3	U	0.010	25.0		
534-52-1	2-Methyl-4 5-dinstrophenol	25.0	U	0.010	25.0		
59-50-7	4-Chloro-3-methylphenol	:: 3	U	0.010	10.0		
106-47-8	4-Chloroanii ne	•: 3	U	0.010	10.0		
7005-72-3	4-Chloropnenyl-phenylether	10.0	U	0.010	10.0		
106-44-5	4-Methylchena (p-Creso!)	70.0	U	0.010	10.0		
83-32-9	Acenaphthene	• : 3	U	0.010	10.0		
208-96-8	Acenaphthylene	78 D	U	0.010	10.0		
120-12-7	Anthracene	10.0	U	0.010	10.0		
56-55-3	Benzo(alanthracene	10.0	U	0.010	10.0		
50-32-8	Benzoka dynene	· D C	U	0.010	10.0		
205-99-2	Benzo/5 #uoranthene	10.0	U	0.010	10.0		
191-24-2	Benzoig.1. perylene	10.0	U	0.010	10.0		
207-08-9	Benzois fluoranthene	-::5	U	0.010	10.0		
111-01-1	Bis(2-Chloroethoxy)methane	70.0	U	0.010	10.0		
111-44-4	Bis(2-Chlamethyliether	0.0	U	0.010	10.0		
108-60-1	bis(2-Chipro-sopropy/lether	<u></u>	U	0.010	10.0		
117-81-7	bis(2-eth in exylighthalate	· 5.5	U	0.010	10.0		
<del></del>			<del></del>				

Lab Name: GC	CAL	Sample ID:	SKGW58D	UP1009		
Lab Code: LAG	024 Case No.:	Contract:				
SAS No.:	SDG No.: 204031909	Lab File ID: 2040326/S5024				
Matrix: Water		Lab Sample II	D: 204031	90902		
Sample wt/vol:	1000 Units: mL	Date Collected: 03/18/04 Time: 1208				
Level: (low/med)		Date Receive	d: 03/19/0	)4		
	decanted: (Y/N)	Date Extracted: 3/21/=4-				
GC Column: DI	B-5MS-30M ID: .25 (mm)	Date Analyzed: 03/26/04 Time: 1640				_
Concentrated Ex	tract Volume: 1000 (µL)	Dilution Factor: 1 Analyst: JAR3				
	: <u>1.0</u> (μL)	Prep Method:				
	//N) N pH:	Analytical Met	hod: OLN	1O 4.2		
		Instrument ID:	MSSV2			
CONCENTRATION	ON UNITS: ug/L	Prep Batch:	271164	Analytical B	atch: 271781	
CAS NO.	COMPOUND	RESULT	Q	MDL	PQL	
101-55-3	4-Bromophenyl-phenylether	10.0	Ü	0.010	10.0	ר '
85-68-7	Butylbenzyiphthalate	10.0	υ	0.010	10.0	7
86-74-8	Carbazole	10.0	U	0.010	10.0	7
218-01-9	Chrysene	10.0	U	0.010	10.0	7
84-74-2	Di-n-butylphthalate	10.00.858	ВЛ	0.010	10.0	7 u 3
117-84-0	Di-n-octylphthalate	10,0	U	0.010	10.0	41
53-70-3	Dibenz(a,h)anthracene	10.0	U	0.010	10.0	7 4 3
132-64-9	Dibenzofuran	10.0	U	0.010	10.0	1
84-66-2	Diethylphthalate	10.0	Ū	0.010	10.0	7
131-11-3	Dimethyl-phthalate	10.0	U	0.010	10.0	┪
105-67-9	2,4-Dimethylphenol	10.0	Ū	0.010	10.0	1
206-44-0	Fluoranthene	10.0	Ū	0.010	10.0	┪
36-73-7	Fluorene	10.0	Ü	0.010	10.0	┪
118-74-1	Hexachlorobenzene	10.0	Ū	0.010	10.0	1
37-68-3	Hexachlorobutadiene	10.0	U	0.010	10.0	1
17-47-4	Hexachlorocyclopentadiene	10.0	U	0.010	10.0	1
67-72-1	Hexachloroethane	10.0	U	0.010	10.0	1
193-39-5	Indeno(1,2,3-cd)pyrene	10.0	Ü	0.010	10.0	7
78-59-1	Isophorone	10.0	U	0.010	10.0	7
91-20-3	Naphthalene	10.0	U	0.010	10.0	1
100-01-6	4-Nitroantline	25.0	U	0.010	25.0	1
98-9 <b>5</b> -3	Nitrobenzene	10.0	U	0.010	10.0	1
00-02-7	4-Nitrophenol	25.0	C	0.010	25.0	1
7-86-5	Pentachiorophenol	25.0	U	0.010	25.0	1
5-01-8	Phenanthrene	10.0	U	0.010	10.0	1
	Phenol	10.0	Ü	0.010	10.0	1
29-00-0	Pyrene	10.0	Ü	0.010	10.0	1
	N-Nitroso-di-n-propylamine	10.0	Ü	0.010	10.0	1
	N-Nitrosodiphenylamine	10.0	U	0.010	10.0	1
	o-Cresol	10.0	<del>- Ü</del>	0.010	10.0	1
10 TO-1	0-010301	10.0	<u> </u>	0.010	10.0	١

5/13/04

## SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: GCAL	Sample ID: SKGW58DUP1009
Lab Code: LA024 2 Case No.:	Contract:
SAS No.: SDG No.: 204031909	Lab File (D: S5024
Metrix Water	Lab Sample ID: 20403190902
Sample wit/volt: Units:	Date Collected: 03/18/04 Time: 1208
Level: (confraed)	Date Received: 03/19/04
% Maisture: not dec.	Date Extracted: 3 (22) 04
GC Column: RTX-5MS-30 ID: 53 (mm)	Date Analyzed: 03/26/04 Time: 1640
Concentrated Extract Volume: 1000 (µL)	Dilution Factor: 1 Analyst: RLW
Injection Volume: 1.0 ( µL )	Prep Method:
GPC Cleanup: (Y/N) N pH:	Analytical Method: SW-846 8270C
<del></del>	Instrument ID: MSSV2
Number TICs Found: 0	
CONCENTRATION UNITS	
CAS NO. COMPOUND	RT EST. CONC. Q
1. No fics detected	

5/17/07 MS-

## 18 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: GC/	AL	Sample ID: S	KGW63100	09	
Lab Code: LA02	24 Case No.:	Contract:	···· ,,-1881 ·· ,,	·	<u>,</u>
SAS No.:	SDG No.: 204031909	Lab File ID: 2	040326/S50	025	
Matrix: Water		Lab Sample ID	: 2040319	0903	
Sample wt/vol:	1000 Units: mL	Date Collected	: 03/18/04	Time:	1430
-		Date Received	: 03/19/04	<del></del>	
	decanted: (Y/N)	Date Extracted	: 3/2	12/04	
GC Column: DB	9-5MS-30M ID: .25 (mm)	Date Analyzed:	03/26/04	Time	1707
	ract Volume: 1000 (µL)	Dilution Factor:	. 1	Analy	st: JAR3
Injection Volume:	1.0 (µL)	Prep Method:			
	//N) N pH:	Analytical Meth	od: OLM	0 4.2	
o. o o.oup. (1	F	Instrument ID:	MSSV2		
CONCENTRATIO	ON UNITS: ug/L	Prep Batch: 2		Analytical Ba	tch: 271781
CAS NO.	COMPOUND	RESULT	Q	MDL	PQL
95-95-4	2,4,5-Trichlorophenol	10.0	Ü	0.010	10.0
88-06-2	2,4,6-Trichlorophenol	10.0	Ū	0.010	10.0
120-83-2	2,4-Dichlorophenol	10.0	U	0.010	10.0
51-28-5	2,4-Dinitrophenol	25.0	U	0.010	25.0
121-14-2	2,4-Dinitrotoluene	10.0	U	0.010	10.0
606-20-2	2.6-Dinitrotoluene	10.0	U	0.010	10.0
91-58-7	2-Chloronaphthalene	10.0	U	0.010	10.0
95-57-8	2-Chlorophenol	10.0	U	0.010	10.0
91-57-6	2-Methylnaphthalene	10.0	Ü	0.010	10.0
88-74-4	2-Nitroaniline	25.0	Ü	0.010	25.0
88-75-5	2-Nitrophenol	10.0	U	0.010	10.0
91-94-1	3,3'-Dichlorobenzidine	10.0	U	0.010	10.0
99-09-2	3-Nitroaniline	25.0	Ū	0.010	25.0
	2-Methyl-4,6-dinitrophenol	25.0	U	0.010	25.0
59-50-7	4-Chloro-3-methylphenol	10.0	U	0.010	10.0
106-47-8	4-Chloroaniline	10.0	Ū	0.010	10.0
7005-72-3	4-Chlorophenyl-phenylether	10.0	U	0.010	10.0
106-44-5	4-Methylphenol (p-Cresol)	10.0	U	0.010	10.0
83-32-9	Acenaphthene	10.0	Ü	0.010	10.0
208-96-8	Acenaphthylene	10.0	Ū	0.010	10.0
120-12-7	Anthracene	10.0	U	0.010	10.0
56-55-3	Benzo(a)anthracene	10.0	Ū	0.010	10.0
50-32-8	Benzo(a)pyrene	10.0	Ū	0.010	10.0
205-99-2	Benzo(b)fluoranthene	10.0	Ü	0.010	10.0
191-24-2	Benzo(g,h,i)perylene	10.0	Ü	0.010	10.0
207-08-9	Benzo(k)fluoranthene	10.0	Ü	0.010	10.0
111-91-1	Bis(2-Chloroethoxy)methane	10.0	Ü	0.010	10.0
111-44-4	Bis(2-Chloroethyl)ether	10.0	Ü	0.010	10.0
108-60-1	bis(2-Chloroisopropyl)ether	10.0	Ü	0.010	10.0
117-81-7	bis(2-ethylhexyl)phthalate	10.0	<del>- </del>	0.010	10.0

## 18 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: GC	CAL	Sample ID:	SKGW6310	09	
Lab Code: LAC	124 Case No.:	Contract			
SAS No.:	SDG No.: 204031909	Lab File 'D'	2040326/55	025	<del></del>
Matric Water		Lab Sample II	D: 2040319	90903	
Sample wt/vol:	1000 Units: mL	Date Cohected	1: 03/18/04	Time:	1430
Level: (low/med)		Date Received	d: 03/19/04	<u> </u>	·
% Moisture:	decanted: (Y/N)	Date Extracted	d: <u>3   2  </u>	2124	
GC Column: Di	B-5MS-30M ID: 25 (mm)	Date Analyzed	1: 03/26/04	Time	1707
Concentrated Ex	fract Volume: 1000 (µL)	Dilution Factor	r. <u>1</u>	Analy	st: JAR3
Injection Volume	c 10 (pL)	Prep Method:			<del></del>
	//N) N pH:	Analytical Met	hod: OLM	042	
		Instrument ID:	MSSV2		
CONCENTRATIO	ON UNITS: Lg1	Prep Batch:	271164	Analytical Ba	tch: 271781
CAS NO.	COMPOUND	RESULT	Q	MDL	PQL
101-55-3	4-Bromopheryt-phenylether	10 C	U	0.010	10.0
85-68-7	Butylbenzyonthalate	0.610	J	0.010	10.0
86-74-8	Carbezole	10.0	U	0.010	10.0
218-01-9	Chrysene	·8 8	U	0.010	10.0
84-74-2	Di-n-butylphthalate	10.0	Ü	0.010	10.0
117-84-0	Di-n-octylontha/ate	10.0	Ū	0.010	10.0
53-70-3	Olbenz(a,hianthracene	10.0	Ü	0.010	10.0
132-64-9	Dibenzofuran	10.0	U	0.010	10.0
84-66-2	Diethylphtha ate	10.3	U	0.010	10.0
131-11-3	Oimethyl-phthalate	10.0	IJ	0.010	10.0
105-67-9	2,4-Dimethytonenol	10.0	U	0.010	10.0
206-44-0	Fluoranthene	10.0	υ	0.010	10.0
86-73-7	Fluorene	10.0	U	0.010	10.0
118-74-1	Hexachlorobenzene	•00	U	0.010	10.0
87-68-3	Hexachlorobutaciene	10.0	υ	0.010	10.0
77-47-4	Hexachlorocyc:opentadiene	10.0	υ	0.010	10.0
67-72-1	Hexachlorce:nane	10.5	IJ	0.010	10.0
193-39-5	Indeno(1,2 3-xd)pyrene	<b>(C.C.</b>	U	0.010	10.0
78-59-1	Isophorone	·: :	U	0.010	10.0
91-20-3	Naphthalere	-0.0	U	0.010	10.0
100-01-6	4-Nitrogniine	25.0	U	0.010	25.0
98-95-3	Nitrobenzene	.00	U	0.010	10.0
100-02-7	4-Nitrophenai	25.0	U	0.010	25.0
87- <b>86</b> -5	Pentachlorconenol	25 0	U	0.010	25.0
85-01-8	Phenanthrene	-c c		0.010	10.0
106-95-2	Phenol	10 C	Ü	0.010	10.0
129-00-0	Pyrene	*C 0	U	0.010	10.0
21-64-7	N-Nitroso-di-n-propytamine	10.0	Ü	0.010	10.0
6-30-6	N-Nitrosodichenytamine	10.0	Ü	0.010	10.0
95-48-7	o-Cresol	70.0	Ü	0.010	10.0

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## SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: GCAL	Sample ID: SKGW631009
Lab Code: LA024 2 Case No.:	Contract:
SAS No.: SDG No.: 204031909	Lab File ID: S5025
Matrix: Water	Lab Sample ID: 20403190903
Sample wt/vol: Units:	Date Collected: 03/18/04 Time: 1430
Level: (low/med)	Date Received: 03/19/04
% Moisture: not dec.	Date Extracted: 3/2/2/04
GC Column: RTX-5MS-30 ID: .53 (mm)	Date Analyzed: 03/26/04 Time: 1707
Concentrated Extract Volume: 1000 (μL) Injection Volume: 1.0 (μL)	Dilution Factor: 1 Analyst: RLW Prep Method:
GPC Cleanup: (Y/N) N pH:	Analytical Method: SW-846 8270C Instrument ID: MSSV2
Number TiCs Found: 0 CONCENTRATION UNITS:	
CAS NO. COMPOUND	RT EST. CONC. Q
1 . No tics detected	

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### SEMIVOLATILE ORGANIES ANALYSIS DATA SHEET

Lab Name: GCAL	Sample D 5	SKGW6110	09	
Lab Code: LA024 Case No.:	Contract			
SAS No.: SDG No.: 204031909	Lab File ID: 2	2040326/\$5	026	<del></del>
Matrix Water	Lab Sample (D	204031	90904	
Sample w//volt 1000 Units mL	Date Collected	: 03/18/0	Time:	1535
Level: (low/med)	Date Received	: 03/19/0	<u> </u>	
% Moisture: decanted: (Y/N)	Date Extracted	: 312	1104	
GC Column: DB-5MS-30M ID: 25 (mm:	, Date Analyzed	03/26/0	Time	1735
Concentrated Extract Volume: 1000 ( µL )	Dilution Factor	: 1	Analy	st JAR3
Injection Volume: 1.0 (µL)	Prep Method:			
GPC Cleanup: (Y/N) N pH:	Analytical Meth	nod: OLM	042	
Mr	- Instrument ID:	MSSV2		
CONCENTRATION UNITS: ug1.	Prep Batch		Analytical Ra	tch: 271781
CAS NO. COMPOUND	RESULT	Q	MDL	PQL
95-95-4 2.4,5-Trichlorophenal	*D.C	IJ	0.010	10.0
88-06-2 2,4,6-Trichlorophenal	10.0	U	0.010	10.0
120-83-2 2,4-Dichlorophenoi	10.0	U	0.010	10.0
51-28-5 2,4-Dinitropheno	25.0	U	0.010	25.0
121-14-2 2,4-Dinitroto-uene	·c:	Ü	0.010	10.0
806-20-2 2,6-Dinitroto-uene	· c c	U	0.010	10.0
91-58-7 2-Chloronaphthalene	.0.2	U	0.010	10.0
95-57-8 2-Chloropheno		IJ	0.010	10.0
91-57-6 2-Methylnaphthalene	-0.5	Ü.	0.010	- 10.0
88-74-4 2-Nitroamine	25.0	<del>-</del> U	0.010	25.0
88-75-5 2-Nitrophenol	10:5	<u>U</u>	0.010	10.0
91-94-1 3,3'-Dichloropenzatine	10.0		0.010	10.0
99-09-2 3-Nitrogniine	25 C	<del>-</del>	0.010	25.0
534-52-1 2-Methyl-4.6-an trophenol	25 C	U	0.010	25.0
59-50-7 4-Chloro-3-methylphenol	10.0	<del>"</del>	0.010	10.0
106-47-8 4-Chloroantine	10.0	U	0.010	10.0
7005-72-3 4-Chlorophenyl-phenylether	10.0	<del>U</del>	0.010	10.0
106-44-5 4-Methylpheno: (p-Cresol)		Ū	0.010	10.0
83-32-9 Acenaphtherie	-3.1	<del></del>	0.010	10.0
206-96-8 Acenaphthylene	• 0.0	<del>-                                    </del>	0.010	10.0
120-12-7 Anthracene	-30	Ü	0.010	10.0
56-55-3 Benzo(a)enthracere		<del></del> _	0.010	10.0
50-32-8 Benzo(a)pyrene		<del></del>	0.010	10.0
205-99-2 Benzo(b)Muoranthene	.30	U	0.010	10.0
191-24-2 Benzo(g,h, )pen/ene		U	0.010	10.0
207-06-9 Benzo(k)Augranthene	100	U	0.010	10.0
111-91-1 Bis(2-Chloroethoxy)methane	10.0	<del>-</del> 0	0.010	10.0
111-44-4 Bis(2-Chloroethy) ether	10.0	<del>- U</del>	0.010	10.0
108-60-1 bis(2-Chlororscorapy) ether	10.0	U	0.010	10.0
117-81-7 bis(2-ethylhex) on halate	10.0	<del>U</del>	0.010	10.0
		_		

91-20-3         Naphthalene         10.0         U         0.010         10.0           100-01-6         4-Nitroaniline         25.0         U         0.010         25.0           98-95-3         Nitrobenzene         10.0         U         0.010         10.0           100-02-7         4-Nitrophenol         25.0         U         0.010         25.0           87-86-5         Pentachlorophenol         25.0         U         0.010         25.0           85-01-8         Phenanthrene         10.0         U         0.010         10.0           108-95-2         Phenol         10.0         U         0.010         10.0           129-00-0         Pyrene         10.0         U         0.010         10.0           621-64-7         N-Nitrosodi-n-propylamine         10.0         U         0.010         10.0           86-30-6         N-Nitrosodiphenylamine         10.0         U         0.010         10.0	Lab Name: _G	GCAL	Sample ID:	SKGW611	009		
SAS No.:   SDG No.: 204031909	Lab Code: LA	A024 Case No.:	Contract:				
Matrix:   Water   Lub Sample ID:   20403190904   Time:   1535	SAS No.:		_				<del></del>
Sample wIvol: 1000 Units: mL   Date Collected: 03/18/04   Time: 1535				ID: 20403	190904	<del></del>	
Date Received:   O3/19/04	<del></del>		•			v 1535	
% Moisture:         decanted: (Y/N)         Date Extracted:         3/12/54           GC Column:         DB-5MS-30M         ID: .25         (mm)         Dale Analyzed:         03/26/04         Time: 1735           Concentrated Extract Volume:         1.0         (μL)         Dilution Factor:         1         Analyst:         JAR3           CONCENTRATION UNITS:         1.0         (μL)         Analytical Method:         OLMO 4.2         CLONCENTRATION UNITS:         Unstrument ID: MSSV2           CAS NO.         COMPOUND         RESULT         Q         MDL         PQL           CAS NO.         COMPOUND         RESULT         Q         MDL         PQL           101-55-3         4-Bromophenyl-phenylether         10.0         U         0.010         10.0           98-74-8         Bulylbenzylphthalate         10.0         U         0.010         10.0           98-74-9         Chrysere         10.0         U         0.010         10.0           117-84-0         Din-noctylphthalate         10.0         U         0.010         10.0           132-84-9         Dibenz(a)-panthracene         10.0         U         0.010         10.0           131-11-3         Dimethyl-phthalate		<u> </u>	_		1	1000	_
Column: DB-sMS-30M   ID: 25   (mm)   Date Analyzed: 03/26/04   Time: 1735							
Concentrated Extract Volume: 1.00	% Moisture: _	decanted: (Y/N)					
Prep Method:	GC Column: _	DB-5MS-30M ID: .25 (mm)	Date Analyze	od: 03/26/0	04 Tim	e: <u>1735</u>	_
Analytical Method: OLMO 4.2   Instrument ID: MSSV2	Concentrated E	Extract Volume: 1000 ( µL )	Dilution Facto	or: <u>1</u>	Ana	lyst: JAR3	
Concentration units: ug/L   Prep Batch: 271184   Analytical Batch: 271781	Injection Volum	ne: 1.0 (µL)	Prep Method	: <u> </u>			
Instrument ID: MSSV2   Prep Batch: 271164   Analytical Batch: 271781			Analytical Me	thod: OLI	MO 4.2		
CONCENTRATION UNITS: ug/L         Prep Batch: 271164         Analytical Batch: 271781           CAS NO.         COMPOUND         RESULT         Q         MDL         PQL           101-55-3         4-Bromophenyl-phenylether         10.0         U         0.010         10.0           95-68-7         Bulylbenzylphthalate         10.0         U         0.010         10.0           96-74-8         Carbazole         10.0         U         0.010         10.0           218-01-9         Chrysene         10.0         U         0.010         10.0           34-74-2         Di-n-bulylphthalate         10.0         U         0.010         10.0           317-84-0         Di-n-octylphthalate         10.0         U         0.010         10.0           132-64-9         Dibenz(a,h)anthracene	or o orositap.	(m) <u>m</u> pm	Instrument IC	: MSSV2			
CAS NO.         COMPOUND         RESULT         Q         MDL         PQL           101-55-3         4-Bromophenyl-phenylether         10.0         U         0.010         10.0           85-88-7         Bulylbenzylphthalate         10.0         U         0.010         10.0           96-74-8         Carbazole         10.0         U         0.010         10.0           34-74-2         Chrysene         10.0         U         0.010         10.0           34-74-2         Di-n-butylphthalate         10.0         U         0.010         10.0           117-84-0         Di-n-citylphthalate         10.0         U         0.010         10.0           132-64-9         Dibenz(a,h)anthracene         10.0         U         0.010         10.0           132-64-9         Dibenz(a,h)anthracene         10.0         U         0.010         10.0           131-13-3         Dimetzly-phthalate         10.0         U         0.010         10.0           131-13-3         Dimetzly-phthalate         10.0         U         0.010         10.0           135-67-9         2,4-Dimetylphenol         10.0         U         0.010         10.0           136-44-0         Fluorathree	CONCENTRAT	TION UNITS: ug/L		<del></del>	Analysiaal	otabi 074704	
101-55-3	040.40	COMPOUND	•				—
95-68-7   Butylbenzylphthalate		<u> </u>	<del></del>				_
98-74-8   Carbazole							4
218-01-9   Chrysene	}	_ <del>- </del>	<del> </del>		· · · · · · · · · · · · · · · · · · ·		_
34-74-2         Di-n-butylphthalate         10.0         U         0.010         10.0         U           117-84-0         Di-n-octylphthalate         10.0         U         0.010         10.0         U           53-70-3         Dibenz(a,h)anthracene         10.0         U         0.010         10.0           132-64-9         Dibenzofuran         10.0         U         0.010         10.0           84-66-2         Diethylphthalate         10.0         U         0.010         10.0           131-11-3         Dimethyl-phthalate         10.0         U         0.010         10.0           105-67-9         2,4-Dimethylphenol         10.0         U         0.010         10.0           105-67-9         2,4-Dimethylphenol         10.0         U         0.010         10.0           86-73-7         Fluorene         10.0         U         0.010         10.0           118-74-1         Hexachlorobutadiene         10.0         U         0.010         10.0           77-47-4         Hexachlorocyclopentadiene         10.0         U         0.010         10.0           67-72-1         Hexachlorocyclopentadiene         10.0         U         0.010         10.0 <t< td=""><td></td><td></td><td><del></del></td><td></td><td></td><td><del></del></td><td><u> </u></td></t<>			<del></del>			<del></del>	<u> </u>
117-84-0   Di-n-octylphthalate   10.0   U   0.010   10.0					<del></del>	<del></del>	۔ ۔
Dibenz(a,h)anthracene   10.0			ļ				
132-64-9   Dibenzofuran   10.0   U   0.010   10.0     84-66-2   Diethylphthalate   10.0   U   0.010   10.0     131-11-3   Dimethyl-phthalate   10.0   U   0.010   10.0     105-67-9   2,4-Dimethylphenol   10.0   U   0.010   10.0     206-44-0   Fluoranthene   10.0   U   0.010   10.0     86-73-7   Fluorene   10.0   U   0.010   10.0     818-74-1   Hexachlorobenzene   10.0   U   0.010   10.0     118-74-1   Hexachlorobutadiene   10.0   U   0.010   10.0     77-47-4   Hexachlorocyclopentadiene   10.0   U   0.010   10.0     67-72-1   Hexachlorocyclopentadiene   10.0   U   0.010   10.0     193-39-5   Indeno(1,2,3-cd)pyrene   10.0   U   0.010   10.0     91-20-3   Naphthalene   10.0   U   0.010   10.0     100-01-6   4-Nitroaniline   25.0   U   0.010   10.0     100-02-7   4-Nitrobenzene   10.0   U   0.010   25.0     87-86-5   Pentachlorophenol   25.0   U   0.010   25.0     87-86-5   Phenol   10.0   U   0.010   10.0     108-95-2   Phenol   10.0   U   0.010   10.0     100-01-6   Pyrene   10.0   U   0.010   10.0     108-95-2   Phenol   10.0   U   0.010   10.0     108-95-2   N-Nitroso-di-n-propylamine   10.0   U   0.010   10.0     100-01-6   N-Nitrosodiphenylamine   10.0   U   0.010   10.0     100-01-6   10.0   U   0.010	<b></b>	DI-n-octylphthalate	10.0		0.010	10.0	_  N2
84-66-2         Diethylphthalate         10.0         U         0.010         10.0           131-11-3         Dimethyl-phthalate         10.0         U         0.010         10.0           105-67-9         2,4-Dimethylphenol         10.0         U         0.010         10.0           206-44-0         Fluoranthene         10.0         U         0.010         10.0           86-73-7         Fluorene         10.0         U         0.010         10.0           118-74-1         Hexachlorobutadiene         10.0         U         0.010         10.0           87-68-3         Hexachlorobutadiene         10.0         U         0.010         10.0           77-47-4         Hexachlorocyclopentadiene         10.0         U         0.010         10.0           67-72-1         Hexachlorocyclopentadiene         10.0         U         0.010         10.0           193-39-5         Indeno(1,2,3-cd)pyrene         10.0         U         0.010         10.0           193-39-5         Indeno(1,2,3-cd)pyrene         10.0         U         0.010         10.0           192-3         Naphthalene         10.0         U         0.010         10.0           10-0-16         4-N		Dibenz(a,h)anthracene	10.0		0.010	10.0	
131-11-3         Dimethyl-phthalate         10.0         U         0.010         10.0           105-67-9         2,4-Dimethylphenol         10.0         U         0.010         10.0           206-44-0         Fluoranthene         10.0         U         0.010         10.0           86-73-7         Fluorene         10.0         U         0.010         10.0           118-74-1         Hexachlorobenzene         10.0         U         0.010         10.0           87-68-3         Hexachlorocyclopentadiene         10.0         U         0.010         10.0           67-72-1         Hexachlorocyclopentadiene         10.0         U         0.010         10.0           67-72-1         Hexachlorocyclopentadiene         10.0         U         0.010         10.0           193-39-5         Indeno(1,2,3-cd)pyrene         10.0         U         0.010         10.0           193-39-5         Indeno(1,2,3-cd)pyrene         10.0         U         0.010         10.0           192-2-3         Naphthalene         10.0         U         0.010         10.0           100-01-6         4-Nitroaniline         25.0         U         0.010         25.0           8-95-3 <td< td=""><td>132-64-9</td><td>Dibenzofuran</td><td>10.0</td><td></td><td>0.010</td><td>10.0</td><td>_</td></td<>	132-64-9	Dibenzofuran	10.0		0.010	10.0	_
105-67-9         2,4-Dimethylphenol         10.0         U         0.010         10.0           206-44-0         Fluoranthene         10.0         U         0.010         10.0           86-73-7         Fluorene         10.0         U         0.010         10.0           118-74-1         Hexachlorobenzene         10.0         U         0.010         10.0           87-68-3         Hexachlorocyclopentadiene         10.0         U         0.010         10.0           77-47-4         Hexachlorocyclopentadiene         10.0         U         0.010         10.0           67-72-1         Hexachlorocyclopentadiene         10.0         U         0.010         10.0           193-39-5         Inden(1,2,3-cd)pyrene         10.0         U         0.010         10.0           193-39-5         Inden(1,2,3-cd)pyrene         10.0         U         0.010         10.0           192-3         Inden(1,2,3-cd)pyrene         10.0         U         0.010         10.0           91-20-3         Naphthalene         10.0         U         0.010         10.0           100-01-6         4-Nitroaniline         25.0         U         0.010         25.0           98-95-3	84-66-2	Diethylphthalate	10.0	U	0.010	· 10.0	_]
206-44-0         Fluoranthene         10.0         U         0.010         10.0           86-73-7         Fluorene         10.0         U         0.010         10.0           118-74-1         Hexachlorobenzene         10.0         U         0.010         10.0           87-68-3         Hexachlorobutadiene         10.0         U         0.010         10.0           77-47-4         Hexachlorocyclopentadiene         10.0         U         0.010         10.0           67-72-1         Hexachlorocythane         10.0         U         0.010         10.0           193-39-5         Indeno(1,2,3-cd)pyrene         10.0         U         0.010         10.0           192-3         Naphthalene         10.0         U         0.010         10.0           100-01-6         4-Nitroanlline         25.0         U         0.010         25.0           98-95-3         Nitrob	131-11-3	Dimethyl-phthalate	10.0	U	0.010	10.0	
86-73-7         Fluorene         10.0         U         0.010         10.0           118-74-1         Hexachlorobenzene         10.0         U         0.010         10.0           87-68-3         Hexachlorobutadiene         10.0         U         0.010         10.0           77-47-4         Hexachlorocyclopentadiene         10.0         U         0.010         10.0           67-72-1         Hexachlorocethane         10.0         U         0.010         10.0           193-39-5         Indeno(1,2,3-cd)pyrene         10.0         U         0.010         10.0           98-59-1         Isophorone         10.0         U         0.010         10.0           91-20-3         Naphthalene         10.0         U         0.010         10.0           91-20-3         Naphthalene         10.0         U         0.010         10.0           98-95-3         Nitrobaniline         25.0         U         0.010         25.0           98-95-3         Nitrobenzene         10.0         U         0.010         25.0           98-95-3         Nitrobenzene         10.0         U         0.010         25.0           98-95-3         Nitrobenzene         10.0	105-67-9	2,4-Dimethylphenol	10.0	U	0.010	10.0	
118-74-1         Hexachlorobenzene         10.0         U         0.010         10.0           87-68-3         Hexachlorobutadiene         10.0         U         0.010         10.0           77-47-4         Hexachlorocyclopentadiene         10.0         U         0.010         10.0           67-72-1         Hexachloroethane         10.0         U         0.010         10.0           193-39-5         Indeno(1,2,3-cd)pyrene         10.0         U         0.010         10.0           78-59-1         Isophorone         10.0         U         0.010         10.0           91-20-3         Naphthalene         10.0         U         0.010         10.0           98-95-1         Nitrobenzene         10.0         U         0.010         25.0           98-95-3         Nitrobenzene         10.0         U         0.010         25.0           97-86-5         Pentachlorophenol         25.0 <td>206-44-0</td> <td>Fluoranthene</td> <td>10.0</td> <td>U</td> <td>0.010</td> <td>10.0</td> <td></td>	206-44-0	Fluoranthene	10.0	U	0.010	10.0	
87-68-3         Hexachlorobutadiene         10.0         U         0.010         10.0           77-47-4         Hexachlorocyclopentadiene         10.0         U         0.010         10.0           67-72-1         Hexachlorocethane         10.0         U         0.010         10.0           193-39-5         Indeno(1,2,3-cd)pyrene         10.0         U         0.010         10.0           78-59-1         Isophorne         10.0         U         0.010         10.0           91-20-3         Naphthalene         10.0         U         0.010         10.0           98-95-3         Nitrobenzene         10.0	86-73-7	Fluorene	10.0	U	0.010	10.0	
77-47-4         Hexachlorocyclopentadiene         10.0         U         0.010         10.0           67-72-1         Hexachloroethane         10.0         U         0.010         10.0           193-39-5         Indeno(1,2,3-cd)pyrene         10.0         U         0.010         10.0           78-59-1         Isophorone         10.0         U         0.010         10.0           91-20-3         Naphthalene         10.0         U         0.010         10.0           100-01-6         4-Nitroaniline         25.0         U         0.010         25.0           98-95-3         Nitrobenzene         10.0         U         0.010         25.0           98-95-3         Nitrophenol         25.0         U         0.010         25.0           98-95-3         Nitrophenol         25.0         U         0.010         25.0           87-86-5         Pentachlorophenol         25.0         U         0.010         25.0           85-01-8         Phenanthrene         10.0         U         0.010         10.0           108-95-2         Phenol         10.0         U         0.010         10.0           129-00-0         Pyrene         10.0         U <td>118-74-1</td> <td>Hexachlorobenzene</td> <td>10.0</td> <td>U</td> <td>0.010</td> <td>10.0</td> <td></td>	118-74-1	Hexachlorobenzene	10.0	U	0.010	10.0	
67-72-1         Hexachloroethane         10.0         U         0.010         10.0           193-39-5         Indeno(1,2,3-cd)pyrene         10.0         U         0.010         10.0           78-59-1         Isophorone         10.0         U         0.010         10.0           91-20-3         Naphthalene         10.0         U         0.010         10.0           100-01-6         4-Nitroaniline         25.0         U         0.010         25.0           98-95-3         Nitrobenzene         10.0         U         0.010         10.0           100-02-7         4-Nitrophenol         25.0         U         0.010         25.0           87-86-5         Pentachlorophenol         25.0         U         0.010         25.0           85-01-8         Phenanthrene         10.0         U         0.010         10.0           108-95-2         Phenol         10.0         U         0.010         10.0           129-00-0         Pyrene         10.0         U         0.010         10.0           621-64-7         N-Nitrosodiphenylamine         10.0         U         0.010         10.0	87-68-3	Hexachlorobutadiene	10.0	U	0.010	10.0	]
193-39-5         Indeno(1,2,3-cd)pyrene         10.0         U         0.010         10.0           78-59-1         Isophorone         10.0         U         0.010         10.0           91-20-3         Naphthalene         10.0         U         0.010         10.0           100-01-6         4-Nitroaniline         25.0         U         0.010         25.0           98-95-3         Nitrobenzene         10.0         U         0.010         10.0           100-02-7         4-Nitrophenol         25.0         U         0.010         25.0           87-86-5         Pentachlorophenol         25.0         U         0.010         25.0           85-01-8         Phenanthrene         10.0         U         0.010         10.0           108-95-2         Phenol         10.0         U         0.010         10.0           129-00-0         Pyrene         10.0         U         0.010         10.0           621-64-7         N-Nitroso-di-n-propylamine         10.0         U         0.010         10.0           86-30-6         N-Nitrosodiphenylamine         10.0         U         0.010         10.0	77-47-4	Hexachlorocyclopentadiene	10.0	U	0.010	10.0	]
78-59-1         Isophorone         10.0         U         0.010         10.0           91-20-3         Naphthalene         10.0         U         0.010         10.0           100-01-6         4-Nitroanlline         25.0         U         0.010         25.0           98-95-3         Nitrobenzene         10.0         U         0.010         10.0           100-02-7         4-Nitrophenol         25.0         U         0.010         25.0           87-86-5         Pentachlorophenol         25.0         U         0.010         25.0           85-01-8         Phenanthrene         10.0         U         0.010         10.0           108-95-2         Phenol         10.0         U         0.010         10.0           129-00-0         Pyrene         10.0         U         0.010         10.0           621-64-7         N-Nitroso-di-n-propylamine         10.0         U         0.010         10.0           86-30-6         N-Nitrosodiphenylamine         10.0         U         0.010         10.0	67-72-1	Hexachloroethane	10.0	U	0.010	10.0	
91-20-3 Naphthalene 10.0 U 0.010 10.0 100-01-6 4-Nitroanlline 25.0 U 0.010 25.0 98-95-3 Nitrobenzene 10.0 U 0.010 10.0 100-02-7 4-Nitrophenol 25.0 U 0.010 25.0 87-86-5 Pentachlorophenol 25.0 U 0.010 25.0 88-01-8 Phenanthrene 10.0 U 0.010 10.0 108-95-2 Phenol 10.0 U 0.010 10.0 129-00-0 Pyrene 10.0 U 0.010 10.0 621-64-7 N-Nitroso-di-n-propylamine 10.0 U 0.010 10.0 86-30-6 N-Nitrosodiphenylamine 10.0 U 0.010 10.0	193-39-5	indeno(1,2,3-cd)pyrene	10.0	U	0.010	10.0	
100-01-6         4-Nitroaniline         25.0         U         0.010         25.0           98-95-3         Nitrobenzene         10.0         U         0.010         10.0           100-02-7         4-Nitrophenol         25.0         U         0.010         25.0           87-86-5         Pentachlorophenol         25.0         U         0.010         25.0           85-01-8         Phenanthrene         10.0         U         0.010         10.0           108-95-2         Phenol         10.0         U         0.010         10.0           129-00-0         Pyrene         10.0         U         0.010         10.0           621-64-7         N-Nitroso-di-n-propylamine         10.0         U         0.010         10.0           86-30-6         N-Nitrosodiphenylamine         10.0         U         0.010         10.0	78-59-1	Isophorone	10.0	U	0.010	10.0	]
98-95-3         Nitrobenzene         10.0         U         0.010         10.0           100-02-7         4-Nitrophenol         25.0         U         0.010         25.0           87-86-5         Pentachlorophenol         25.0         U         0.010         25.0           85-01-8         Phenanthrene         10.0         U         0.010         10.0           108-95-2         Phenol         10.0         U         0.010         10.0           129-00-0         Pyrene         10.0         U         0.010         10.0           621-64-7         N-Nitroso-di-n-propylamine         10.0         U         0.010         10.0           86-30-6         N-Nitrosodiphenylamine         10.0         U         0.010         10.0	91-20-3	Naphthalene	10.0	U	0.010	10.0	7
100-02-7         4-Nitrophenol         25.0         U         0.010         25.0           87-86-5         Pentachlorophenol         25.0         U         0.010         25.0           85-01-8         Phenanthrene         10.0         U         0.010         10.0           108-95-2         Phenol         10.0         U         0.010         10.0           129-00-0         Pyrene         10.0         U         0.010         10.0           621-64-7         N-Nitroso-di-n-propylamine         10.0         U         0.010         10.0           86-30-6         N-Nitrosodiphenylamine         10.0         U         0.010         10.0	100-01-6	4-Nitroaniline	25.0	U	0.010	25.0	}
87-86-5         Pentachlorophenol         25.0         U         0.010         25.0           85-01-8         Phenanthrene         10.0         U         0.010         10.0           108-95-2         Phenol         10.0         U         0.010         10.0           129-00-0         Pyrene         10.0         U         0.010         10.0           621-64-7         N-Nitroso-di-n-propylamine         10.0         U         0.010         10.0           86-30-6         N-Nitrosodiphenylamine         10.0         U         0.010         10.0	98-95-3	Nitrobenzene	10.0	U	0.010	10.0	7
85-01-8         Phenanthrene         10.0         U         0.010         10.0           108-95-2         Phenol         10.0         U         0.010         10.0           129-00-0         Pyrene         10.0         U         0.010         10.0           621-64-7         N-Nitroso-di-n-propylamine         10.0         U         0.010         10.0           86-30-6         N-Nitrosodiphenylamine         10.0         U         0.010         10.0	100-02-7	4-Nitrophenol	25.0	U	0.010	25.0	7
108-95-2         Phenol         10.0         U         0.010         10.0           129-00-0         Pyrene         10.0         U         0.010         10.0           621-64-7         N-Nitroso-di-n-propylamine         10.0         U         0.010         10.0           86-30-6         N-Nitrosodiphenylamine         10.0         U         0.010         10.0	87-86-5	Pentachlorophenol	25.0	U	0.010	25.0	7
129-00-0         Pyrene         10.0         U         0.010         10.0           621-64-7         N-Nitroso-di-n-propylamine         10.0         U         0.010         10.0           86-30-6         N-Nitrosodiphenylamine         10.0         U         0.010         10.0	85-01-8	Phenanthrene	10.0	U	0.010	10.0	7
621-64-7         N-Nitroso-di-n-propylamine         10.0         U         0.010         10.0           86-30-6         N-Nitrosodiphenylamine         10.0         U         0.010         10.0	108-95-2	Phenol	10.0	Ų	0.010	10.0	7
86-30-6 N-Nitrosodiphenylamine 10.0 U 0.010 10.0	129-00-0	Pyrene	10.0	U	0.010	10.0	7
	621-64-7	N-Nitroso-di-n-propylamine	10.0	U	0.010	10.0	1
95-48-7 o-Cresol 10.0 U 0.010 10.0	86-30-6	N-Nitrosodiphenylamine	10.0	U	0.010	10.0	7
	95-48-7	o-Cresol	10.0	U	0.010	10.0	

5/17/04

## SEMIVOLATILE ORGAN OS ANALYSIS DATA SHEET TENTATIVELY DENTIFIED COMPOUNDS

Lab Name: GCAL	Sample ID: SKGW611009
Lab Code: LA024 2 Case No.:	Contract:
SAS No.: SDG No.: 204031909	Lat File ID: S5026
Matrix: Water	Lab Sample 1D: 20403190904
Sample wt/vol: Units	Date Collected: 03/18/04 Time: 1535
Level: (lowlmed)	Date Received: 03/19/04
% Moisture: not dec.	Date Extracted: 3 221=4
GC Column: RTX-5MS-30 ID: 53 (mm	Date Analyzed: 03/26/04 Time: 1735
Concentrated Extract Volume: 1000 (µL)	Dilution Factor: 1 Analyst: RLW
Injection Volume: 10 (µL)	Prep Method:
GPC Cleanup: (Y/N) N pH:	Analytical Method: SW-846 8270C
Number TICs Found: 0 CONCENTRATION UNITS	Instrument ID: MSSV2
CAS NO. COMPOUND	RT EST. CONC. Q
1. No lics detected	

5/12/27 1984

### 1B SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: GG	CAL	Sample ID:	SKGWFB1	009	
Lab Code: LA	024 Case No.:	Contract:			
SAS No.:	SDG No.: 204031909	Lab File ID:	2040326/S	5029	
Matrix: Water		Lab Sample I	D: 204031	90908	
Sample wt/vol:	1000 Units: mL	Date Collecte	d· 03/18/0	 14 Time	: 1702
•		Date Receive			. 1702
	decanted: (Y/N)	Date Extracte			
	<del></del>				- 4055
GC Column: D	B-5MS-30M ID:25 (mm)	Date Analyze		<del></del>	e: <u>1855</u>
Concentrated Ex	tract Volume: 1000 (µL)	Dilution Facto	r: <u>1</u>	Ana	lyst: JAR3
Injection Volume	: <u>1.0</u> (µL)	Prep Method:	****		
	Y/N) N pH:	Analytical Me	thod: OLN	1O 4.2	
, ,		Instrument ID	: MSSV2		
CONCENTRATI	ON UNITS: ug/L	Prep Batch:		Analytical B	atch: 271781
CAS NO.	COMPOUND	RESULT	Q	MDL	PQL
95-95-4	2,4,5-Trichlorophenol	10.0	Τυ	0.010	10.0
88-06-2	2,4,6-Trichlorophenol	10.0	U	0.010	10.0
120-83-2	2,4-Dichlorophenol	10.0	U	0.010	10.0
51-28-5	2,4-Dinitrophenol	25.0	U	0.010	25.0
121-14-2	2,4-Dinitrotoluene	10.0	U	0.010	10.0
606-20-2	2,6-Dinitrotoluene	10.0	U	0.010	10.0
91-58-7	2-Chloronaphthalene	10.0	U	0.010	10.0
95-57-8	2-Chlorophenol	10.0	U	0.010	10.0
91-57-6	2-Methylnaphthalene	10.0	U	0.010	10.0
88-74-4	2-Nitroaniline	25.0	U	0.010	25.0
88-75-5	2-Nitrophenol	10.0	U	0.010	10.0
91-94-1	3,3'-Dichlorobenzidine	10.0	U	0.010	10.0
99-09-2	3-Nitroaniline	25.0	U	0.010	25.0
534-52-1	2-Methyl-4,6-dinitrophenol	25.0	U	0.010	25.0
59-50-7	4-Chloro-3-methylphenol	10.0	U	0.010	10.0
106-47-8	4-Chloroaniline	10.0	υ	0.010	10.0
7005-72-3	4-Chlorophenyl-phenylether	10.0	U	0.010	10.0
106-44-5	4-Methylphenol (p-Cresol)	10.0	U	0.010	10.0
83-32-9	Acenaphthene	10.0	U	0.010	10.0
208-96-8	Acenaphthylene	10.0	U	0.010	10.0
120-12-7	Anthracene	10.0	5	0.010	10.0
56-55-3	Benzo(a)anthracene	10.0	U	0.010	10.0
50-32-8	Benzo(a)pyrene	10.0	J	0.010	10.0
205-99-2	Benzo(b)fluoranthene	10.0	U	0.010	10.0
191-24-2	Benzo(g,h,i)perylene	10.0	U	0.010	10.0
207-08-9	Benzo(k)fluoranthene	10.0	U	0.010	10.0
11-91-1	Bis(2-Chloroethoxy)methane	10.0	U	0.010	10.0
111-44-4	Bis(2-Chloroethyl)ether	10.0	U	0.010	10.0
108-60-1	bis(2-Chloroisopropyl)ether	10.0	U	0.010	10.0
117-81-7	bis(2-ethylhexyl)phthalate	10.0	U	0.010	10.0

# 18 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL	Sample 10:	SKGWFB10	09		
Lab Code: LA024 Case No.:	Contract				
SAS No.: SDG No.: 20403	1909 Lab File iD:	2040326/\$50	)29	<del></del>	
Matrix: Water	Lab Sample	ID: 2040319	0908		
Sample wt/vol: 1000 Units: mL	Date Collect	ed: 03/18/04	Time:	1702	_
Level: (low/med)	Date Receiv	ed: <u>03/19/04</u>			
% Moisture: decanted: (Y/N)	Date Extract	ed: 3 122	134		
GC Column: DB-5MS-30M iD: .25	(mm) Date Anaryzi	ed: 03/26/04	Time:	1855	_
Concentrated Extract Volume: 1000		tor: 1	Analy	st: JAR3	_
Injection Volume: 1 0	D 14	<b>)</b> :	<u> </u>		
		ethod: OLM			_
GPC Cleanup: (Y/N) N pH:	· ·				_
CONCENTRATION UNITS: 50%	instrument '(	D: MSSV2			
CONCENTRATION UNITS: 59°C	Prep Batch:	271164	Analytical Ba	tch: 271781	
CAS NO. COMPOUND	RESULT	Q	MDL	PQL	
101-55-3 4-Bromopher y-phenylether	10.0	Ü	0.010	10.0	7
85-68-7 Butylbenzylonthalate	10.0	U	0.010	10.0	]
86-74-8 Carbazole	10.0	U	0.010	10.0	П
218-01-9 Chrysene	10.0	U	0.010	10.0	
84-74-2 Di-n-butysprthalate	10.0	U	0.010	10.0	่ไน
117-84-0 Di-n-octylprthalate	10.0	U	0.010	10.0	่]น
53-70-3 Dibenz(a,n)anthracene	10.0	U	0.010	10.0	] "
132-64-9 Dibenzofuran	10.5	υ	0.010	10.0	
84-66-2 Diethylphthalate	10.5	Ü	0.010	10.0	
131-11-3 Dimethyl-prtha:ate	10.0	U	0.010	10.0	
105-67-9 2,4-Dimethylchenol	10.0	บ	0.010	10.0	
206-44-0 Fluoranthere	10.0	U	0.010	10.0	
86-73-7 Fluorene	10.0	U	0.010	10.0	
118-74-1 Hexachlorobenzene	10.0	U	0.010	10.0	
87-68-3 Hexachlorobutaciene	10.0	U	0.010	10.0	
77-47-4 Hexachlorocyclopentadiene	10.0	U	0.010	10.0	
67-72-1 Hexachloroethane	10.0	U	0.010	10.0	
193-39-5 Indeno(1,2,3-cc pyrene	10.0	U	0.010	10.0	
78-59-1 Isophorone	10.0	U	0.010	10.0	
91-20-3 Naphthalene	10.0	υ	0.010	10.0	
100-01-6 4-Nitroansine	25 7	υ	0.010	25.0	
98-95-3 Nitrobenzene	100	U	0.010	10.0	
100-02-7 4-Nitropheno:	25 :	บ	0.010	25.0	_
87-86-5 Pentachiorophenoi	25.0	U	0.010	25.0	<b>-</b>
85-01-8 Phenanthrene	<b>-</b> 5 0	IJ	0.010	10.0	
108-95-2 Phenol	10.0	Ü	0.010	10.0	
129-00-0 Pyrene	10.3	IJ	0.010	10.0	٦
621-64-7 N-Nitroso-ct-rpropytamine	10,0	IJ	0.010	10.0	_
86-30-6 N-Nitrosodiphen yamine	10.0	IJ	0.010	10.0	_
95-48-7 o-Cresoi	10.0	Ú	0.010	10.0	_
					_

#### 1F ORGANICS ANAI

## SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: GCAL	Sample ID: SKGWFB1009
Lab Code: LA024 2 Case No.:	Contract:
SAS No.: SDG No.: 204031909	Lab File ID: S5029
Matrix: Water	Lab Sample ID: 20403190908
Sample wt/vol: Units:	Date Collected: 03/18/04 Time: 1702
Level: (low/med)	Date Received: 03/19/04
% Moisture: not dec.	Date Extracted: 3/22/04-
GC Column: RTX-5MS-30 ID: .53 (mm)	Date Analyzed: 03/26/04 Time: 1855
Concentrated Extract Volume: 1000 (µL)	Dilution Factor: 1 Analyst: RLW
Injection Volume: 1.0 (µL)	Prep Method:
GPC Cleanup: (Y/N) N pH:	Analytical Method: SW-846 8270C
Number TICs Found: 0 CONCENTRATION UNITS: CAS NO. COMPOUND	Instrument ID: MSSV2  RT EST. CONC. Q
1. No tics detected	7. 201. 00110.
7.	<u> </u>

5/17/64 msh

### SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: G	CAL	Sample (D)	SKGW06R	1009	
Lab Code: LA	024 Case No.:	Contract:			
SAS No.:	SDG No.: 204031909	Lab File (D)	2040326/5	6030	<del></del>
Matrix Water		Lab Sample II	D: 204032	20801	
Sample wt/vol:	1000 Units mL	Date Datiected	d: 03/16/0	4 Time:	1458
Level: (low/med	)	Date Received	d: 03/19/0	4	
% Maisture:	decanted: (Y/N)	Date Extracted	d: <u>3 (</u> 1	12/04.	··-
GC Column: D	08-5MS-30M ID: 25 (mm)	Date Analyzed	d: <u>03/26/0</u>	4 Time	: 1922
Concentrated Ex	ixtract Volume. 1000 ( j.c. )	Dilution Factor	r. <u>1</u>	Anat	yst JAR3
	e:(µL)	Prep Method:			
	Y/N) N pH:	Analytical Met	hod: OLM	10 4.2	
,		Instrument ID:	MSSV2		
CONCENTRATI	ION UNITS: JGL	Prep Batch:	271164	Analytical Ba	itch: 271781
CAS NO.	COMPOUND	RESULT	Q	MDL	PQL
95-95-4	2,4,5-Trichlorophenal	.c.c	υ	0.010	10.0
88-06-2	2.4,6-Trichiarophenal	.0.0	U	0.010	10.0
120-83-2	2,4-Dichloropheno	10.0	U	0.010	10.0
51-28-5	2,4-Dinstrophenol	25 0	U	0.010	25.0
121-14-2	2,4-Dinitroto-Jene	10.0	U	0.010	10.0
606-20-2	2,6-Dinitrotoiuene	•0.0	U	0.010	10.0
91-58-7	2-Chloronaonthalene	•0.5	U	0.010	10.0
95-57-8	2-Chloropheno	•0.0	Ü	0.010	10.0
91-57-6	2-Methylnaphtraiene	10 (	U	0.010	10.0
88-74-4	2-Nitroansine	25 (	U	0.010	25.0
88-75-5	2-Nitrophenoi	10.0	U	0.010	10.0
91-94-1	3,3'-Dichlorepenzidine	*0 C	U	0.010	10.0
99-09-2	3-Nitroanune	25 0	U	0.010	25.0
534-52-1	2-Methyl-4 5-cantropheno	25 0	U	0.010	25.0
59-50-7	4-Chioro-3-metrylohenol	10.0	U	0.010	10.0
106-47-8	4-Chloroaniine	17.7	υ	0.010	10.0
7005-72-3	4-Chloropheny -phenylether	10.0	U	0.010	10.0
106-44-5	4-Methylpheno p-Cresoli	10.0	U	0.010	10.0
83-32-9	Acenaphthere	10.0	U	0.010	10.0
206-96-8	Acenaphthylene	10.0	U	0.010	10.0
120-12-7	Anthracene	10.0	U	0.010	10.0
56-55-3	Benzo(a)antryacene	10.0	U	0.010	10.0
50-32-8	Benzo(a)pyrene	100	U	0.010	10.0
205-99-2	Benzo(bifluoranthene	10.0	U	0.010	10.0
191-24-2	Benzo(g.h pervene	10.0	Ū	0.010	10.0
207-08-9	Benzo(k)fluoranthene	10.0	Ū	0.010	10.0
111-91-1	Bis(2-Chloroethoxy)methane	10.0	U	0.010	10.0
111-44-4	Bis(2-Chioroethyl)ether	10.0	<del>- </del>	0.010	10.0
108-60-1	bis(2-Chiero sopropyl)ether	10.0	- <del>u</del>	0.010	10.0
117-81-7	bis(2-ethyrnex): onthalate	10.0	<del>- <u>U</u>  </del>	0.010	10.0
		<u>_</u>			

## 1B SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: G	CAL	Sample ID:	SKGW06R1	1009		
Lab Code: LA	024 Case No.:	Contract:				
SAS No.:	SDG No.: 204031909	Lab File ID:				
Matrix: Water		Lab Sample II	D: 204032	20801	<del></del>	
Sample wt/vol:	1000 Units: mL	Date Collected: 03/16/04 Time: 1458				
Level: (low/med	)	Date Receive			<del></del>	
	decanted: (Y/N)	Date Extracte	d: 3 2	2/04	· · · · · · · · · · · · · · · · · · ·	
<del></del> -	DB-5MS-30M ID: .25 (mm)	Date Analyze			e: 1922	
	xtract Volume: 1000 (µL)	Dilution Facto	r: 1	Anai	lyst: JAR3	
		Prep Method:		· · · · · · · · · · · · · · · · · ·	·	
	e: 1.0 (µL)	Analytical Met		042		_
GPC Cleanup: (	Y/N) N pH:	Instrument ID:		7.2		
CONCENTRATI	ION UNITS: ug/L			Anabrical D		
CAS NO.	COMPOUND	Prep Batch: RESULT		Analytical ba	PQL	
101-55-3	4-Bromophenyl-phenylether	10.0	TU	0.010	10.0	٦
85-68-7	Butylbenzylphthalate	10.0	Ū	0.010	10.0	-
86-74-8	Carbazole	10.0	<del>                                     </del>	0.010	10.0	-
218-01-9	Chrysene	10,0	<del>l ü</del>	0.010	10.0	-
84-74-2	Di-n-butylphthalate	10.0	U	0.010	10.0	Tu-
117-84-0	Di-n-octylphthalate	10.0	Ü	0.010	10.0	ŭ:
53-70-3	Dibenz(a,h)anthracene	10.0	- U	0.010	10.0	┦~′
132-64-9	Dibenzofuran	10.0	<del>U</del>	0.010	10.0	-
84-66-2	Diethylphthalate	10.0	u u	0.010	10,0	7
131-11-3	Dimethyl-phthalate	10.0	<del>-</del>	0.010	10.0	┨
105-67-9	2,4-Dimethylphenol	10.0	U	0.010	10.0	4
206-44-0	Fluoranthene	10.0	U	0.010	10.0	┥
86-73-7	Fluorene	10.0	- Ū	0.010	10.0	7
118-74-1	Hexachlorobenzene	10.0	Ū	0.010	10.0	7
87-68-3	Hexachlorobutadiene	10.0	U	0.010	10.0	7
77-47-4	Hexachlorocyclopentadiene	10.0	Ü	0.010	10.0	7
67-72-1	Hexachloroethane	10,0	U	0.010	10.0	7
193-39-5	Indeno(1,2,3-cd)pyrene	10.0	U	0.010	10.0	1
78-59-1	Isophorone	10.0	U	0.010	10.0	1
91-20-3	Naphthalene	10.0	U	0.010	10.0	1
100-01-6	4-Nitroaniline	25.0	U	0.010	25.0	7
98-95-3	Nitrobenzene	10.0	Ū	0.010	10.0	1
100-02-7	4-Nitrophenol	25.0	U	0.010	25.0	1
87-86-5	Pentachlorophenol	25.0	Ü	0.010	25.0	1
85-01-8	Phenanthrene	10.0	Ū	0.010	10.0	7
108-95-2	Phenol	10.0	Ū	0.010	10.0	1
129-00-0	Pyrene	10.0	Ü	0.010	10.0	1
621-64-7	N-Nitroso-di-n-propylamine	10.0	Ü	0.010	10.0	1
86-3C-6	N-Nitrosodiphenylamine	10.0	Ū	0.010	10.0	1
95-48-7	o-Cresol	10.0	<del>- i</del>	0.010	10.0	1
<u> </u>	4		1			1

5/13/04 MSVE

### SEMINOLATILE CROAN OF ANALYSIS DATA SHEET TENTATIVELY DENTIFIED COMPOUNDS

Lab Name: GCAL	Sample ID SKGW06R1009
Lab Code: LA024 2 Case No.:	Contract:
SAS No.: 5DG No.: 2C4031909	Lab File :D: S5030
Matrix Water	Lab Samble ID: 20403220801
Sample without: Units	Date Collected: 03/16/04 Time: 1458
Level: (low/med)	Date Received: 03/19/04
% Moisture: not dec.	Date Extracted: 3/12/04
GC Column: RTX-5MS-30 iD: 53 (mm)	Date Analyzed: 03/26/04 Time: 1922
Concentrated Extract Volume: 1000 ( µL )	Dilution Factor: 1 Analyst: RLW
Injection Volume: 10 (pt.)	Prep Metrod:
GPC Cleanup: (Y/N) N pH:	Analytical Method: SW-846 8270C
	Instrument ID: MSSV2
Number TICs Found: 0	
CONCENTRATION UNITS	
CAS NO. COMPOUND	RT EST. CONC. Q
1. No tics detected	

5/17/5**4** 

## 1B SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: G	CAL	Sample ID:	SKGW07R	1009	
Lab Code: LA	024 Case No.:	Contract:			
SAS No.:	SDG No.: 204031909				
Matrix: Water		Lab Sample II	D: 204032	20802	
Sample wt/vol:	1000 Units: mL	Date Collecte	d· 03/16/0	 4 Time	: 1552
	)	Date Receive			. 1002
		Date Extracte			
	decanted: (Y/N)			<del></del>	4050
GC Column: D	B-5MS-30M ID: .25 (mm)	Date Analyze	a: <u>03/26/0</u>	4 IIme	: 1950
Concentrated Ex	ktract Volume: 1000 ( µL )	Dilution Facto	r: <u>1</u>	Anal	yst: JAR3
	e: 1.0 (μL)	Prep Method:		····	
	Y/N) N pH:	Analytical Met	thod: OLM	10 4.2	
	······································	Instrument ID:	. MSSV2		
CONCENTRATI	ON UNITS: ug/L				
		Prep Batch:	-		atch: 271781
CAS NO.	COMPOUND	RESULT	Q	MDL	PQL
95-95-4	2,4,5-Trichlorophenol	10.0	U	0.010	10.0
88-06-2	2,4,6-Trichlorophenol	10.0	U	0.010	10.0
120-83-2	2,4-Dichlorophenol	10.0	U	0.010	10.0
51-28-5	2,4-Dinitrophenol	25.0	U	0.010	25.0
121-14-2	2,4-Dinitrotoluene	10.0	U	0.010	10.0
606-20-2	2,6-Dinitrotoluene	10.0	U	0.010	10.0
91-58-7	2-Chloronaphthalene	10.0	U	0.010	10.0
95-57-8	2-Chlorophenol	10.0	U	0.010	10.0
91-57-6	2-Methylnaphthalene	10.0	U	0.010	10.0
88-74-4	2-Nitroaniline	25.0	U	0.010	25.0
88-75-5	2-Nitrophenol	10.0	U	0.010	10.0
91-94-1	3,3'-Dichlorobenzidine	10.0	U	0.010	10.0
99-09-2	3-Nitroaniline	25.0	U	0.010	25.0
534-52-1	2-Methyl-4,6-dinitrophenol	25.0	U	0.010	25.0
59-50-7	4-Chloro-3-methylphenol	10.0	U	0.010	10.0
106-47-8	4-Chloroaniline	10.0	U	0.010	10.0
7005-72-3	4-Chlorophenyl-phenylether	10.0	U	0.010	10.0
106-44-5	4-Methylphenol (p-Cresol)	10.0	U	0.010	10.0
83-32-9 208-96-8	Acenaphthene	10.0	U	0.010	10.0
	Acenaphthylene	10.0	U	0.010	10.0
120-12-7	Anthracene	10.0	U	0.010	10.0
56-55-3	Benzo(a)anthracene	10.0	U	0.010	10.0
50-32-8	Benzo(a)pyrene	10.0	U	0.010	10.0
205-99-2 191-24-2	Benzo(b)fluoranthene	10.0 10.0	U	0.010	10.0
207-08-9	Benzo(g,h,i)perylene Benzo(k)fluoranthene	10.0	U	0.010	10.0
111-91-1	Bis(2-Chloroethoxy)methane	10.0	U	0.010	10.0
111-91-1	Bis(2-Chloroethyl)ether	10.0	<del>- 0</del>	0.010	10.0
				0.010	10.0
108-60-1	bis(2-Chloroisopropyl)ether	10.0	U	0.010	10.0
117-81-7	bis(2-ethylhexyl)phthalate	10.0	U	0.010	10.0

### SEMIVOLATILE ORGANIOS ANALYSIS DATA SHEET

Lab Name: G	CAL	Sample ID:	SKGW07R1	009		
Lab Code: LA	024 Case No.:	Contract:				
SAS No.:	SDG No.: 204031909	Lab Fle D: <u>1</u>	2040325/550	)31		
Matric: Water		Lab Sample II	): <u>2040322</u>	0802		
Sample wt/vol:	1000 Units. mL	Date Codected	t: 03/16/04	Time:	1552	
Level: (low/med)	)	Date Received	1: 03/19/04			
% Moisture:	decanted: (Y1N)	Date Extracted	ı: <u>3 17</u>	104		
GC Column: D	<b>IB-5MS-30M</b> ID: _25 (mm/	Date Analyzed	03/26/04	Time:	1950	_
Concentrated Ex	xtract Volume: 1000 (µL)	Dilution Factor	<del>.</del> 1	Analy	st: JAR3	_
	κ <u>10</u> (μL)	Prep Method:			· · · · · · · · · · · · · · · · · · ·	_
	Y/N) N pH:	Analytical Meti	nod: OLMC	04.2		
		Instrument ID:	MSSV2			
CONCENTRATI	ION UNITS: JGL			Analytical Ba	tch: 271781	_
CAS NO.	COMPOUND	RESULT	Q	MDL	PQL	_
101-55-3	4-Bromopheny-phenylether	.0:	U	0.010	10.0	٦
85-68-7	Butylbenzyiphthalate	10.0	Ü	0.010	10.0	ヿ
86-74-8	Carbazole	.00	U	0.010	10.0	7
218-01-9	Chrysene		υ	0.010	10.0	7
84-74-2	Di-n-butyiphma:ate	7::	U	0.010	10.0	Πu
117-84-0	Di-n-octylon:na/ate	10.0	U	0.010	10.0	Πu
53-70-3	Dibenz(a.nianthracene	<b>*::</b>	Ü	0.010	10.0	⊣‴
132-64-9	Dibenzotura	·c 5	U	0.010	10.0	┨
84-66-2	Diethylphthaate	·C.:	Ü	0.010	10.0	-
131-11-3	Dimethyl-pritratate	10.5	U	0.010	10.0	┪
105-67-9	2,4-Dimethyphenal	10.0	U	0.010	10.0	┨
206-44-0	Fluoranthene	·c :	U	0.010	10.0	┪
86-73-7	Fluorene	10.3	U	0.010	10.0	-
118-74-1	Hexachioropenzene	10.0	U	0.010	10.0	-
87-68-3	Hexachlorooutatiene	*0.3	Ü	0.010	10.0	┪
77-47-4	Hexachlorocyclopentadiene		U	0.010	10.0	<del>-</del> í
67-72-1	Hexachloroethane	10.0	U	0.010	10.0	-
193-39-5	Indeno(1,2,3-cc pyrene	10.0	<del></del>	0.010	10.0	-
78-59-1	Isophorone	10.0	<del></del>	0.010	10.0	-
91-20-3	Naphthalene	10.0	<del>- u</del>	0.010	10.0	-
100-01-6	4-Nitroaniline	25 0	<del>- U</del>	0.010	25.0	-
96-95-3	Ntrobenzere	10.0	Ü	0.010	10.0	-
100-02-7	4-Nitropheno	25 :				_
87-86-5	Pentachiorognenol	25 (	U	0.010 0.010	25.0	_
5-01-8	<del></del>	·::			25.0	_'
	Phenanthrene		U	0.010	10.0	_
108-95-2	Phenol	10:0	U	0.010	10.0	-
129-00-0	Pyrene	:0::		0.010	10.0	_
521-64-7	N-Nitroso-di-ri-crocytamine	10.0	<u>U</u>	0.010	10.0	_
6-30-6	N-Nitrosodiphen / amine	• • • • • • • • • • • • • • • • • • • •		0.010	10.0	
35-48-7	o-Cresol	•0.0	Ü	0.010	10.0	

5/13/21/2

### 1F SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: GCAL	Sample ID: SKGW07R1009
Lab Code: LA024 2 Case No.:	Contract:
SAS No.: SDG No.: 204031909	Lab File ID: S5031
Matrix: Water	Lab Sample ID: 20403220802
Sample wt/vol: Units:	Date Collected: 03/16/04 Time: 1552
Level: (low/med)	Date Received: 03/19/04
% Moisture: not dec.	Date Extracted: 312104
	Date Analyzed: 03/26/04 Time: 1950
	Dilution Factor: 1 Analyst: RLW
Injection Volume: 1.0 (1	Dona Madhada
GPC Cleanup: (Y/N) N pH:	Analytical Method: SW-846 8270C
	Instrument ID: MSSV2
Number TICs Found: 0	
CONCENTRATION UNITS:	
CAS NO. COMPOUND	RT EST. CONC. Q
1. No tics detected	

5/13/24 mm

### SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name:	GCAL	Sample D:	SKGW5910	09	
Lab Code: L	A024 Case No.:	Contract:			
SAS No.:	SDG No.: 204031909	Lab File D: _2	2040326/55	032	
Metric Wat		Lab Samble II	D: 204032	20803	
Sample wt/voi	t 1000 unks mi.	Date Collected	d: 03/17/0	4 Time:	1050
Level: (lowlmo	ed)	Date Received	d: 03/19/0	— <u>—                                   </u>	
	decanted: (Y/N)	Date Extracted	ı: 312	<b>ટો</b> જ	
•	DB-5MS-30M ID: 25 (mm)	Date Analyzed			: 2018
				Analy	rst: JAR3
	Extract Volume 1000 (µL:	Prep Method:			
Injection Votus	mec 1.0 ( µL )				
GPC Cleanup	(Y/N) N pH:	Analytical Met	nod: <u>ULM</u>	042	
CONCENTER	ATION UNITS - 51.	Instrument ID:	MSSV2	<del></del>	
CONCENTION	THOR OWN 3 SAC	Prep Batch:	271164	Analytical Ba	tch: 271781
CAS NO.	COMPOUND	RESULT	Q	MDL	PQL
95-95-4	2,4,5-Trichlorophenal	100	u	0.010	10.0
88-06-2	2,4,6-Trichiorpohenoi	10.0	U	0.010	10.0
120-83-2	2,4-Dichlorophenal	100	U	0.010	10.0
51-28-5	2,4-Dinitrochenai	25 0	U	0.010	25.0
121-14-2	2,4-Dinitrate vene	•00	U	0.010	10.0
606-20-2	2,6-Dinitrotatuene	9 C D	U	0.010	10.0
91-58-7	2-Chloronaohthalene	<b>10</b> D	Ü	0.010	10.0
95-57-8	2-Chloropheno	10 D	U	0.010	10.0
91-57-6	2-Methylnaohthalene	o o	U	0.010	10.0
88-74-4	2-Nitroaniine	25.0	U	0.010	25.0
88-75-5	2-Nitropheno	10.0	حا	0.010	10.0
91-04-1	3,3'-Dichiorobenzidine	.0.2	5	0.010	10.0
99-09-2	3-Nitroaniine	25 0	U	0.010	25.0
534-52-1	2-Methyl-4 5-dinitrophenoi	25.3	U	0.010	25.0
59-50-7	4-Chioro-3-metrylpheno.	10.7	U	0.010	10.0
106-47-8	4-Chloroansne	•5.0	U	0.010	10.0
7005-72-3	4-Chloropheny-pheny-ether	· ɔ ːː	U	0.010	10.0
106-44-5	4-Methylprieros p-Creso:	•5:	U	0.010	10.0
83-32-9	Acenaphthene	.00	Ü	0.010	10.0
206-96-8	Acenaphthylene	10.0	U	0.010	10.0
120-12-7	Antivacene	.00	Ü	0.010	10.0
56-55-3	Benzo(alanthracene	10.0	U	0.010	10.0
50-32-8	Benzo(alpyrene	10.0	U	0.010	10.0
205-99-2	Benzo(b)/fuoranthene	• 2 :	U	0.010	10.0
191-24-2	Benzo(g.n. ipery:ene	-3:	Ū	0.010	10.0
207-08-9	Benzo(kilfuoranthene	-0.0	U	0.010	10.0
111-91-1	Bis(2-Chiorpethoxy)methane	70.0	U	0.010	10.0
111-44-4	Bis(2-Chloroethyl)ether	*D ©	U	0.010	10.0
100-60-1	bis(2-C*-crossopropyl)ether	• <u>\$</u> \$	U	0.010	10.0
117-81-7	bis(2-ethylhexy lonthalate	•:::	Ū	0.010	10.0

## 1B SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: G	CAL		Sample ID:	SKGW5910	009		
Lab Code: LA	024 Case No.:		Contract:				
SAS No.:	SDG No.: 2040	31909	Lab File ID:				
Matrix: Water			Lab Sample II	D: 204032	20803		
			•		<del></del>	1050	
	1000 Units: mL	<del></del>			74 Time:	1050	<del></del>
Level: (low/med)	)		Date Received				_
% Moisture:	decanted: (Y/N)	<del></del>	Date Extracted	d: 3/3	2104		_
GC Column: D	B-5MS-30M ID: .25	(mm)	Date Analyzed	d: <u>03/26/0</u>	4 Time	: 2018	
	ktract Volume: 1000	-	Dilution Factor	r: <u>1</u>	Anal	yst: JAR3	
	a: <u>1.0</u>	_	Prep Method:				
	Y/N) N pH:		Analytical Met	hod: OLA	10 4.2		
	· · · · · · · · · · · · · · · · · · ·	<del></del>	Instrument ID:	MSSV2			
CONCENTRATI	ON UNITS: ug/L		Prep Batch:	271164	Analytical Ba	atch: 271781	
CAS NO.	COMPOUND		RESULT	<del></del>	MDL	PQL	_
101-55-3	4-Bromophenyl-phenylether		10.0	T 0	0.010	10.0	٦
35-68-7	Butylbenzylphthalate	·	10.0	Ü	0.010	10.0	-
36-74-8	Carbazole		10.0	U	0.010	10.0	╗
218-01-9	Chrysene		10.0	U	0.010	10.0	-
84-74-2	Di-n-butylphthalate	1	0.0 0.016	<b>B</b> J	0.010	10.0	7 45
117-84-0	Di-n-octylphthalate		10.0	U	0.010	10.0	us
53-70-3	Dibenz(a,h)anthracene		10.0	Ū	0.010	10.0	- "
132-64-9	Dibenzofuran		10.0	Ū	0.010	10.0	-
84-66-2	Diethylphthalate		10.0	Ü	0.010	10:0	┪
131-11-3	Dimethyl-phthalate		10.0	Ü	0.010	10.0	┪
105-67-9	2,4-Dimethylphenol		10.0	U	0.010	10.0	┪
206-44-0	Fluoranthene		10.0	Ü	0.010	10.0	┪
86-73-7	Fluorene	``	10.0	Ū	0.010	10.0	7
118-74-1	Hexachlorobenzene		10.0	U	0.010	10.0	7
87-68-3	Hexachlorobutadiene		10.0	Ü	0.010	10.0	╗
77-47-4	Hexachlorocyclopentadiene		10.0	U	0.010	10.0	7
67-72-1	Hexachioroethane		10.0	U	0.010	10.0	7
193-39-5	Indeno(1,2,3-cd)pyrene		10.0	Ü	0.010	10.0	7
78-59-1	Isophorone		10.0	U	0.010	10.0	7
91-20-3	Naphthalene		10.0	U	0.010	10.0	1
100-01-6	4-Nitroaniline		25.0	U	0.010	25.0	1
98-95-3	Nitrobenzene		10.0	Ü	0.010	10.0	7
100-02-7	4-Nitrophenol		25.0	U	0.010	25.0	7
37-86- <b>5</b>	Pentachlorophenol		25.0	Ū	0.010	25.0	1
85-01-8	Phenanthrene		10.0	Ü	0.010	10.0	1
108-95-2	Phenol		10.0	U	0.010	10.0	1
129-00-0	Pyrene	<del></del>	10.0	U	0.010	10.0	1
521-64-7	N-Nitroso-di-n-propylamine		10.0	Ü	0.010	10.0	1
	N-Nitrosodiphenylamine		10.0	U	0.010	10.0	1
95-48-7	o-Cresol		10.0	Ū	0.010	10.0	1

5/13/09 msa

## SEMINOLATILE ORGAN IS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: GCAL	Sample ID: SKGW591009
Lab Code: LA024 2 Case No.:	Contract
SAS No.: SEG No.: 204631909	Lab File :D: \$5032
Water Water	Lab Samble ID: 20403220803
Sample wt/vol: Units	Date Soliected:         03/17/04         Time:         1050
Levet: (low/med)	Date Received: 03/19/04
% Moisture: not dec.	Date Extraded: 3(22(04
GC Column: RTX-5MS-30 (D: .53 (mm)	Date Analyzed: 03/26/04 Time: 2018
Concentrated Extract Volume: 1000 (µL)	Dilution Factor: 1 Analyst: RLW
Injection Volume: 13 (µL)	Prep Method:
GPC Cleanup: (Y/N) N pH:	Analytical Method: SW-846 8270C
	Instrument 'D: MSSV2
Number TICs Found: 0	
<b>CONCENTRATION UNITS</b>	
CAS NO. COMPOUND	RT EST. CONC. Q
1. No tics detected	T

5/14/24 274

1B SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: _G	CAL	Sample ID: _5	SKGW6010	09	
Lab Code: LA	024 Case No.:	Contract:		····	
SAS No.:	SDG No.: 204031909	Lab File ID: _2	040326/85	033	<del></del>
Matrix: Water		Lab Sample ID	204032	20804	
Sample wt/vol:	1000 Units: mL	Date Collected	: 03/17/04	Time:	1115
Level: (low/med	)	Date Received	: 03/19/04	ļ	
% Moisture:	decanted: (Y/N)	Date Extracted	: 312	2104	
GC Column: D	B-5MS-30M ID: .25 (mm)	Date Analyzed:	03/26/04	Time	: 2045
Concentrated Ex	ktract Volume: 1000 (µL)	Dilution Factor:	: 1	Analy	st: JAR3
Injection Volume	e: 1.0 (µL)	Prep Method:			
	Y/N) N pH:	Analytical Meth	od: OLM	0 4.2	
, ,	·	Instrument ID:	MSSV2		
CONCENTRATI	ION UNITS: ug/L	Prep Batch: 2	271164	Analytical Ba	tch: 271781
CAS NO.	COMPOUND	RESULT	Q	MDL	PQL
95-95-4	2,4,5-Trichlorophenol	10.0	Ü	0.010	10.0
88-06-2	2,4,6-Trichlorophenol	10.0	Ū	0.010	10.0
120-83-2	2,4-Dichlorophenol	10.0	U	0.010	10.0
51-28-5	2,4-Dinitrophenol	25.0	U	0.010	25.0
121-14-2	2,4-Dinitrotoluene	10.0	U	0.010	10.0
606-20-2	2,6-Dinitrotoluene	10.0	Ü	0.010	10.0
91-58-7	2-Chloronaphthaiene	10,0	U	0,010	10.0
95-57-8	2-Chlorophenol	10.0	υ	0.010	10.0
91-57-6	2-Methylnaphthalene	10.0	U	0.010	10.0
88-74-4	2-Nitroaniline	25.0	U	0.010	25.0
88-75-5	2-Nitrophenol	10.0	U	0.010	10.0
91-94-1	3,3'-Dichlorobenzidine	10.0	Ū	0.010	10.0
99-09-2	3-Nitroaniline	25.0	Ü	0.010	25.0
534-52-1	2-Methyl-4,6-dinitrophenol	25.0	Ü	0.010	25.0
59-50-7	4-Chloro-3-methylphenol	10.0	U	0.010	10.0
106-47-8	4-Chloroaniline	10.0	υ	0.010	10.0
7005-72-3	4-Chlorophenyl-phenylether	10.0	Ü	0.010	10.0
106-44-5	4-Methylphenol (p-Cresol)	10.0	U	0.010	10.0
83-32-9	Acenaphthene	10.0	Ü	0.010	10.0
208-96-8	Acenaphthylene	10.0	Ū	0.010	10.0
120-12-7	Anthracene	10.0	Ū	0.010	10.0
56-55-3	Benzo(a)anthracene	10.0	U	0.010	10.0
50-32-8	Benzo(a)pyrene	10.0	Ü	0.010	10.0
205-99-2	Benzo(b)fluoranthene	10.0	υ	0.010	10.0
191-24-2	Benzo(g,h,i)perylene	10.0	U	0.010	10.0
207-08-9	Benzo(k)fluoranthene	10.0	U	0.010	10.0
111-91-1	Bis(2-Chloroethoxy)methane	10.0	Ü	0.010	10.0
111-44-4	Bis(2-Chloroethyl)ether	10.0	<del>  </del>	0.010	10.0
108-60-1	bls(2-Chloroisopropyl)ether	10.0	U	0.010	10.0
117-81-7	bis(2-ethylhexyl)phthalate	10.0	<del>-</del>	0.010	10.0
	1	<del></del>			

# 18 SEMINOLATILE ORGANIOS ANALYSIS DATA SHEET

Lab Name: GCAL	Sample (D):	SKGW601	009		
Lab Code: LA024 Case No.:	Contract:				
SAS No.: SCG No.: 204031909	Lab File 'D.	2040326/5	5033		
Metric Water	Lab Samble II	D: 20 <b>403</b> 2	220804		
Sample wit/volt: 1000 Units mL	Date Collecte	d: 03/17/0	Y Time:	1115	
Level: (lowlmed)	Date Receive	d: <u>03/19/</u> 0	ж		_
% Moisture: decanted: (Y N)	Date Extracte	a: <u>7</u> 1	2104		_
GC Column: DB-5MS-30M ID: 25 (mm)	Date 4nalyze	d: 03/26/0	4 Time	2045	_
Concentrated Extract Volume 1000 ( p )		c <u>1</u>	Anal	yst: JAR3	_
Injection Volume: 1.0 ( µL )					
GPC Cleanup: (Y/N) N pH:	Analytica: Mel				_
An A commendate (1915) 75 No. 1	Instrument ID:			<u> </u>	_
CONCENTRATION UNITS: 1991.			Analytical Ba	atch: 271781	_
CAS NO. COMPOUND	RESULT		MDL	PQL	
101-55-3 4-Bromopheny:-phenylether	10.0	U	0.010	10.0	7
85-68-7 Bully/benzy/ph:matate		U	0.010	10.0	7
86-74-8 Carbazole	77.1	U	0.010	10.0	7
218-01-9 Chrysene	•5.3	Ü	0.010	10.0	7
84-74-2 Di-n-butylonthalate	15.6	U	0.010	10.0	٦u
117-84-0 Di-n-octytohthaliate	1:::	U	0.010	10.0	٦ũ
53-70-3 Dibenzia in tantimacene	•:::	U	0.010	10.0	٦٣
132-64-9 Dibenzofuran		U	0.010	10.0	1
84-66-2 Diethylph ha ale	• • • • •	U	0.010	10.0	7
131-11-3 Dimethyl-promatate	<del></del>	J	0.010	10.0	7
105-67-9 2,4-Dimetry oneroi	•:::	U	0.010	10.0	7
206-44-0 Fluoranthene	10.0	U	0.010	10.0	1
86-73-7 Fluorene	-::	U	0.010	10.0	1
118-74-1 Hexachloroberizene	-1.5	U	0.010	10.0	7
87-68-3 Hexachlorocutaciene	• 7. 5	U	0.010	10.0	7
77-47-4 Hexachlorocyclopentadiene	-::	Ü	0.010	10.0	7
67-72-1 Hexachloroethane	• : :	U	0.010	10.0	7
193-39-5 Indeno(1.2.3-cc)pyrene		U	0.010	10.0	7
78-59-1 Isophorone	•: ;	U	0.010	10.0	1
91-20-3 Naphthalene	*C.C	U	0.010	10.0	1
100-01-6 4-Nitroantine	25 :	Ü	0.010	25.0	1
96-95-3 Nitrobenzene	•:::	U	0.010	10.0	1
100-02-7 4-Nitrophenal	25 0	U	0.010	25.0	1
87-86-5 Pentachlorognenol	25.7	U	0.010	25.0	1
85-01-6 Phenanthrene	71	υ	0.010	10.0	1
108-95-2 Phenol	10.0	U	0.010	10.0	1
129-00-0 Pyrene	10.2	U	0.010	10.0	1
621-64-7 N-Nitroso-ci-n-propytamine	15.5	U	0.010	10.0	1
86-30-6 N-Nitrosodipheryramine	·: :	U	0.010	10.0	1
95-48-7 o-Cresci	7: :	Ü	0.010	10.0	1
			<del></del>	<del></del>	_

#### 1F SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: GCAL	Sample ID: SKGV	V601009	
Lab Code: LA024 2 Case No.:	Contract:		
SAS No.: SDG No.: 204031909	Lab File ID: S503	33	
Matrix: Water	Lab Sample ID: 2	20403220804	
Sample wt/vol: Units:	Date Collected: _0	03/17/04 Ti	me: 1115
Level: (low/med)	Date Received: _0	03/19/04	
% Moisture: not dec.	Date Extracted: _	3122/04	
GC Column: RTX-5MS-30 ID: .53 (mm)	Date Analyzed: _0	03/26/04 Ti	me: 2045
Concentrated Extract Volume: 1000 (µL)	Dilution Factor: 1	Ar	nalyst: RLW
injection Volume: 1.0 (µL)	Prep Method:		
GPC Cleanup: (Y/N) N pH:	Analytical Method:	SW-846 8270C	
A CONTRACTOR OF THE PARTY OF TH	Instrument ID: MS	SSV2	
Number TICs Found: 0			
CONCENTRATION UNITS:			
CAS NO. COMPOUND	RT	EST. CONC.	Q
1. No tics detected			

5/19/24 Mm

### SEMINICIATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL	Sample 10. SKGW62A1009
Lab Code: LA024 Case No.:	Contract
SAS No.: SDG No. 204031909	Eat File (D: 2040326/\$5034
Metrix Water	Lab Sample ID: 20403220805
Sample withot: 1000 Units mL	Date Collected: 03/17/04 Time: 1150
Level: (lowlmed)	Date Received: 03/19/04
% Moisture: decanted: (Y/N)	Date Extracted: 7/22/54
GC Column: <u>D8-5MS-30M</u> ID: <u>.25</u> (mm)	Date 4-natyzed: 03/26/04 Time: 2112
Concentrated Extract Volume 1000 (µL)	Dilution Factor: 1 Analyst: JAR3
Injection Volume: 1.3 (µL)	Prep Method:
GPC Cleanup: (Y/N) N pH:	Analytical Method: OLMO 4.2
	instrument ID: MSSV2
CONCENTRATION UNITS 1941	Prep Batch: 271164 Analytical Batch: 271781
CAS NO. COMPOUND	RESULT Q MDL PQL
95-95-4 2.4,5-Trichlorophenol	10.2 U 0.010 10.0
68-06-2 2,4,6-Trichlorophenol	10.0 U 0.010 10.0
120-83-2 2,4-Dichloropheno:	10 0 0.010 10.0
51-28-5 2,4-Dinitropheno	2f : U 0.010 25.0
121-14-2 2,4-Oinstrototuene	10.0 U 0.010 10.0
606-20-2 2,6-Dinitrotoiuene	10 C U 0.010 10.0
91-58-7 2-Chloronaphthairene	10.0 U 0.010 10.0
95-57-8 2-Chlorophenol	10 C U 0.010 10.0
91-57-6 2-Methylnaprimaiene	10 0 U 0.010 10.0
88-74-4 2-Nitroanline	25 C U 0.010 25.0
66-75-5 2-Nitropheno:	10 C U 0.010 10.0
91-94-1 3,3'-Dichloropenziding	*0 C U 0.010 10.0
99-09-2 3-Nitrogniline	25 C U 0.010 25.0
534-52-1 2-Methyl-4,6-ci.nitrophenol	25 0 U 0.010 25.0
59-50-7 4-Chloro-3-methylonenal	10 C U 0.010 10.0
106-47-8 4-Chlorosniine	10.0 U 0.010 10.0
7005-72-3 4-Chloropheny-phenylether	10.0 U 0.010 10.0
106-44-5 4-Methylphenoi (p-Cresol)	10.0 U 0.010 10.0
83-32-9 Acenaphthene	10.0 U 0.010 10.0
208-96-8 Acenaphthylene	18 C U 0.010 10.0
120-12-7 Anthracene	10.0 U 0.010 10.0
56-55-3 Benzo(a)anthracene	10 C U 0.010 10.0
50-32-8 Benzo(a)pyrene	·00 U 9.010 10.0
205-99-2 Benzo(b)fluoranthene	10.0 U 0.010 10.0
191-24-2   Benzo(g.h.i)per, ene	10.0 U 0.010 10.0
207-08-9 Benzo(k)fluoranthene	10 0 <b>U 0.010 10.0</b>
111-91-1 Bis(2-Chloroetnox, methane	1C.0 U 0.010 10.0
111-44-4 Bis(2-Chloroethyt)ether	10 D U 0.010 10.0
108-60-1 bis(2-Chloroscorcoys)ether	1C.C U 0.010 10.0
117-81-7 bis(2-ethylhexy-or-tha-ate	11 U 0.010 10.0
	_ <del></del>

#### 1B SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: GC	CAL	Sample ID:	SKGW62A	1009		
Lab Code: LAG	024 Case No.:	Contract: _	··	·	·	_
SAS No.:	SDG No.: 20403190				<del></del>	
Matrix: Water		Lab Sample	ID: 204032	20805		
Sample wt/vol:	1000 Units: mL	Date Collecte	ed: 03/17/0	14 Time	: <u>1150</u>	
Level: (low/med)		Date Receive	ed: 03/19/0	)4	· · · · · · · · · · · · · · · · · · ·	_
% Moisture:	decanted: (Y/N)	Date Extracte	ed: <u>3[2</u>	2124		<del></del> -
GC Column: D	B-5MS-30M ID: .25 (n	nm) Date Analyze	ed: 03/26/0	74 Time	e: 2112	
Concentrated Ex	stract Volume: 1000 ()	ıL) Dilution Facto	or: <u>1</u>	Ana	lyst: JAR3	
Injection Volume	:(;	IL) Prep Method	:	·····		
GPC Cleanup: (1	Y/N) NpH:	Analytical Me	ethod: OLM	AO 4.2	<del></del>	_
		Instrument ID	: MSSV2			
CONCENTRATI	ON UNITS: ug/L	Prep Batch:	271164	Analytical B	atch: 271781	
CAS NO.	COMPOUND	RESULT	Q	MDL	PQL	
101-55-3	4-Bromophenyl-phenylether	10.0	U	0.010	10.0	7
35-68-7	Butylbenzylphthalate	10.0	U	0.010	10.0	
86-74-8	Carbazole	10.0	U	0.010	10.0	7
218-01-9	Chrysene	10.0	U	0.010	10.0	7
84-74-2	Di-n-butylphthalate	10.0	U	0,010	10.0	Tu3
117-84-0	Di-n-octylphthalate	10.0	U	0.010	10.0	านั้ว
53-70-3	Dibenz(a,h)anthracene	10.0	T U	0.010	10.0	7~~
132-64-9	Dibenzofuran	10.0	1 0	0.010	10.0	-1
84-66-2	Diethylphthalate	10.0	<del>                                     </del>	0.010	10.0	ᅥ
131-11-3	Dimethyi-phthalate	10.0	<del> </del>	0.010	10.0	-
105-67-9	2,4-Dimethylphenol	10.0	1	0.010	10.0	-
206-44-0	Fluoranthene	10.0	<del>1                                    </del>	0.010	10.0	┥
86-73-7	Fluorene	10.0	<del>                                     </del>	0.010	10.0	7
118-74-1	Hexachlorobenzene	10.0	<del>                                     </del>	0.010	10.0	┪
87-68-3	Hexachlorobutadiene	10.0	<del>                                     </del>	0.010	10.0	Ⅎ
77-47-4	Hexachiorocyclopentadiene	10.0	<del></del>	0.010	10.0	-
67-72-1	Hexachloroethane	10.0	Ū	0.010	10.0	┪
193-39-5	Indeno(1,2,3-cd)pyrene	10.0	<del>                                     </del>	0.010	10.0	-
73-59-1	Isophorone	10.0	l ū	0.010	10.0	┪
91-20-3	Naphthalene	10.0	<del>                                     </del>	0.010	10.0	┪
100-01-6	4-Nitroaniline	25.0	<del>                                     </del>	0.010	25.0	-
98-95-3	Nitrobenzene	10.0	1 0	0.010	10.0	┥
100-02-7	4-Nitrophenol	25.0	<del>                                     </del>	0.010	25.0	-}
87-86-5	Pentachlorophenol	25.0	1 0	0.010	25.0	-{
85-01-8	Phenanthrene	10.0	<del>                                     </del>	0.010	10.0	4
108-95-2	Phenol	10.0	<del>                                     </del>	0.010	10.0	-
129-00-0		10.0	<del>                                     </del>		10.0	4
621-64-7	Pyrene ' N-Nitroso-di-n-propylamine	10.0		0.010	10.0	-{
				0.010		4
86-30-6 05-48-7	N-Nitrosodiphenylamine	10.0	U	0.010	10.0	4
95-48-7	o-Cresol	10.0	U	0.010	10.0	

# SEMIVOLATILE ORGANIOS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: GCAL	Sample D. SKGW62A1009
Lab Code: LA024 2 Case No.:	Contract:
SAS No.: 204031909	Lab File ID: S5034
Matrix Water	Lab Sample ID: 20403220805
Sample wt/vol: Units:	Date Coffected: 03/17/04 Time: 1150
Levet: (lowimed)	Date Received: 03/19/04
% Moisture: not dec.	Date Extracted: 712104
GC Column: RTX-5MS-30 ID: .53 (mm.)	Date Analyzed: 03/26/04 Time: 2112
Concentrated Extract Volume: 1000 ( µL )	Dilution Factor: 1 Analyst: RLW
Injection Volume: 10 (µL)	Prep Method:
GPC Cleanup: (Y/N) N pH:	Analytical Method: SW-846 8270C
Number TICs Found: 0 CONCENTRATION UNITS	nstrument ID: MSSV2
CAS NO. COMPOUND	RT EST. CONC. Q
1. No tics detected	

5117/=4

## 1B SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: GC	CAL	Sample ID:	SKGW6410	009		
Lab Code: LAG	024 Case No.:	Contract:				
SAS No.:	SDG No.: 204031909	Lab File ID:	2040326/5	5035	<del></del>	
Matrix: Water		Lab Sample II	D: 204032	20806		
Sample wt/vol:	1000 Units: mL	Date Collected: 03/17/04 Time: 1410				
Level: (low/med)		Date Receive	d: 03/19/0	4		
% Moisture:	decanted: (Y/N)	Date Extracte	q: 315	2104		
GC Column: D	B-5MS-30M ID: .25 (mm)	Date Analyzed	d: <u>03/26/0</u>	4 Time	2138	
Concentrated Ex	tract Volume: 1000 ( µL )	Dilution Facto	r: <u>1</u>	Anal	yst: JAR3	
Injection Volume	:(µL)	Prep Method:				
GPC Cleanup: (\	(/N) N pH:	Analytical Met	hod: OLM	10 4.2		
		Instrument ID:	MSSV2			
CONCENTRATI	ON UNITS: ug/L	Prep Batch:	271164	Analytical Ba	atch: 271781	
CAS NO.	COMPOUND	RESULT	Q	MDL	PQL	
95-95-4	2,4,5-Trichlorophenol	10.0	U	0.010	10.0	
88-06-2	2,4,6-Trichlorophenol	10.0	U	0.010	10.0	
120-83-2	2,4-Dichlorophenol	10.0	Ü	0.010	10.0	
51-28-5	2,4-Dinitrophenol	25.0	U	0.010	25.0	
121-14-2	2,4-Dinitrotoluene	10.0	U	0.010	10.0	
606-20-2	2,6-Dinitrotoluene	10.0	U	0.010	10.0	
91-58-7	2-Chloronaphthalene	10.0	U	0.010	10.0	
95-57-8	2-Chlorophenol	10.0	U	0.010	10.0	
91-57-6	2-Methylnaphthalene	10.0	U	0.010	10.0	
88-74-4	2-Nitroaniline	25.0	U	0.010	25.0	
88-75-5	2-Nitrophenol	10.0	U	0.010	10.0	
91-94-1	3,3'-Dichlorobenzidine	10.0	U	0.010	10.0	
99-09-2	3-Nitroaniline	25.0	U	0.010	25.0	
534-52-1	2-Methyl-4,6-dinitrophenol	25.0	U	0.010	25.0	
59-50-7	4-Chloro-3-methylphenol	10.0	U	0.010	10.0	
106-47-8	4-Chloroaniline	10.0	U	0.010	10.0	
7005-72-3	4-Chiorophenyl-phenylether	10.0	U	0.010	10.0	
106-44-5	4-Methylphenol (p-Cresol)	10.0	U	0.010	10.0	
83-32-9	Acenaphthene	10.0	U	0.010	10.0	
208-96-8	Acenaphthylene	10.0	U	0.010	10.0	
120-12-7	Anthracene	10.0	U	0.010	10.0	
56-55-3	Benzo(a)anthracene	10.0	U	0.010	10.0	
50-32-8	Benzo(a)pyrene	10.0	U	0.010	10.0	
205-99-2	Benzo(b)fluoranthene	10.0	U	0.010	10.0	
191-24-2	Benzo(g,h,i)perylene	10.0	U	0.010	10.0	
207-08-9	Benzo(k)fluoranthene	10.0	U	0.010	10.0	
111-91-1	Bis(2-Chloroethoxy)methane	10.0	Ü	0.010	10.0	
111-44-4	Bis(2-Chloroethyl)ether	10.0	U	0.010	10.0	
108-60-1	bis(2-Chloroisopropyl)ether	10.0	U	0.010	10.0	
117-81-7	bis(2-ethylhexyl)phthalate	10.0	Ū	0.010	10.0	

### SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: GC	:AL	Sample 'D' _S	KG <b>W64100</b>	9		_	
Lab Code: LAG	24 Case No.:	Contract:			· · · · · · · · · · · · · · · · · · ·	_	
SAS No.:	SDG No.: 204031909	Lab File D 2	040326/550	35			
Metric Water		Lab Sample ID	2040322	0006			
Sample wt/vol:	1000 Units mL	Date Collected: 03/17/04 Time: 1410					
Level: (fow/med)		Date Received	: 03/19/04				
% Moisture:	decanted: (Y/N)	Date Extracted	: 3 22	104		_	
GC Column: Di	B-5MS-30M ID: .25 (mm)	Date Analyzed	03/26/04	Time:	2138		
Concentrated Ex	tract Volume 1000 (pt. )	Dilution Factor	: 1	Analy	st: JAR3	_	
	c(µL)	Prep Method:					
	//N) N pH:	Analytical Met	od: OLMC	04.2			
		instrument ID:	MSSV2				
CONCENTRATION	ON UNITS. Ug/L	Prep Batch	271164	Analytical Bat	tch: 271781	_	
CAS NO.	COMPOUND	RESULT	Q	MDL	PQL	_	
101-55-3	4-Bromophenyt-phenytether	10 :	IJ	0.010	10.0	7	
85-68-7	Butylbenzyiphthalate	10.0	Ü	0.010	10.0		
86-74-8	Carbazole	10.0	U	0.010	10.0	7	
218-01- <del>0</del>	Chrysene	10.0	Ü	0.010	10.0	7	
84-74-2	Di-n-butylpnthalate	10.7	U	0.010	10.0	٦u	
117-84-0	Di-n-octylphthalate	10.0	U	0.010	10.0	∃u	
53-70-3	Oibenz(a,h)anthracene	10.0	U	0.010	10.0	7	
132-64-9	Dibenzoluran	10.0	Ü	0.010	10.0	٦	
84-66-2	<b>Disthylphthalate</b>	10.0	Ü	0.010	10.0	7	
131-11-3	Oimethyl-phthalate	10 D	Ü	0.010	10.0	٦	
105-67-9	2,4-Dimethyrphenal	*0.0	Ü	0.010	10.0	7	
206-44-0	Fluoranthene	70.0	U	0.010	10.0	7	
86-73-7	Fluorene	*C.C	U	0.010	10.0	7	
118-74-1	Hexachiorobenzene	• 0.0	IJ	0.010	10.0	7	
87-68-3	Hexachlorobutaciene	10.0	U	0.010	10.0	7	
77-47-4	Hexachlorocyclopentadiene	10.0	U	0.010	10.0	7	
67-72-1	Hexachloroemane	- C- C	U	0.010	10.0	7	
193-39-5	Indeno(1,2,3-cd toyrene	10.0	Ü	0.010	10.0	7	
78-59-1	Isophorone	٠٥ ز	Ü	0.010	10.0	_	
91-20-3	Naphthalene	.0.5	บ	0.010	10.0	_	
100-01-6	4-Nitroansine	25.1	U	0.010	25.0	-	
96-95-3	Nitrobenzene	+8: C	IJ	0.010	10.0	_	
100-02-7	4-Nitrophenoi	25.0	U	0.010	25.0	-	
87-86-5	Pentachiorophenoi	25 C	Ū	0.010	25.0	-	
85-01-8	Phenanthrene	10.0	Ū	0.010	10.0	-	
	Phenol	*C.C	Ü	0.010	10.0	_	
129-00-0	Pyrane	-c.c	U	0.010	10.0	-	
621-64-7	N-Nitroso-a-n-cropylamine	-5.0	<del>-</del> Ū	0.010	10.0	_	
	N-Nitrosodionen tamine	-6.0	<del>Ŭ</del>	0.010	10.0	-	
	o-Cresol	-0.0	<del></del>	0.010	10.0	-	
				J.J.J		_	

5/13/04 -

#### 1F SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: GCAL	Sample ID: SKGW641009
Lab Code: LA024 2 Case No.:	Contract:
SAS No.: SDG No.: 204031909	Lab File ID: S5035
Matrix: Water	Lab Sample iD: 20403220806
Sample wt/vol: Units:	Date Collected: 03/17/04 Time: 1410
Level: (low/med)	Date Received: 03/19/04
% Moisture: not dec.	Date Extracted: 3 22 -4
GC Column: RTX-5MS-30 ID: .53 (mm)	Date Analyzed: 03/26/04 Time: 2206
Concentrated Extract Volume: 1000 (µL)	Dilution Factor: 1 Analyst: RLW
Injection Volume: 1.0 ( µL )	Prep Method:
GPC Cleanup: (Y/N) N pH:	Analytical Method: SW-846 8270C Instrument ID: MSSV2
Number TICs Found: 0	110012
CONCENTRATION UNITS:	
CAS NO. COMPOUND	RT EST. CONC. Q
1. No tics detected	

5/11/24 ~~

### SEMINOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: G	CAL	Sample D: S	SKGW65100	19	
Lab Code: LA	024 Case No	Contract			
SAS No.:	SDG No.: 204031909	Lab File (D2	2040326/\$50	136	<del></del>
Matrix: Water		Lab Sample ID	2040322	0807	
Sample wt/vol:	1000 Units mL	Date Collected	03/17/04	Time:	1440
Level: (low/med	0	Date Received	: 03/19/04		
% Moisture: _	decanted: (Y/N)	Date Extracted	: 3/21	-1-4	
GC Column: D	08-5MS-30M ID: 25 (mm)	Date Analyzed	03/26/04	Time:	2206
Concentrated E	xtract Volume: 1000 (µL)	Dilution Factor	: 1	Analyst	: JAR3
Injection Volume	t 10 (µL)	Prep Method:			
-		Analytical Meth	nod: OLMC	)42	
GPC Cleanup: (	(Y/N) N pH:	Instrument ID:			<u></u>
CONCENTRAT	OON UNITS: ug/l.			Analytical Batch	b. 271781
CAS NO.	COMPOUND	RESULT	Q	_ MDL	PQL
95-95-4	2.4.5-Trichlorophenal	10:	<u> </u>	0.010	10.0
88-06-2	2,4,6-Trichlorophenoi	10.5	ü	0.010	10.0
120-63-2	2.4-Dichlorconeno	10.0	U	0.010	10.0
51-28-5	2.4-Dinitrophenol	25 :	Ü	0.010	25.0
121-14-2	2.4-Dinstrotoluene	10 0	Ü	0.010	10.0
606-20-2	2.6-Dinitrotoluene	10.0	U	0.010	10.0
91-58-7	2-Chloronaphmalene	10.0	Ü	0.010	10.0
95-57-8	2-Chloropheno	15.5	U -	0.010	10.0
91-57-6	2-Methylnaphthalene	10.0	U	0.010	10.0
88-74-4	2-Nitrognane	25.	Ü	0.010	25.0
88-75-5	2-Nitrophenoi	10.0	Ü	0.010	10.0
91-94-1	3.3'-Dichloropenzione	12.0	U	0.010	10.0
99-09-2	3-Nitrognime	25.0	U	0.010	25.0
534-52-1	2-Methyl-4,6-cinitrophenol	25.0	U	0.010	25.0
59-50-7	4-Chloro-3-methylphenoi	10.0	<del>- U</del>	0.010	10.0
106-47-8	4-Chlorografine	10.0	<del></del>	0.010	10.0
7005-72-3	4-Chigrophenyl-phenylether	10.5	U	0.010	10.0
106-44-5	4-Methylphena( (p-Cresal)	-6.5	U	0.010	10.0
83-32-9	Acenaphthere	10.0	U	0.010	10.0
208-96-8	Acanaphthylene	·c:	Ü	0.010	10.0
120-12-7	Anthracene	-0:	J J	0.010	10.0
56-55-3	Benzo(a)anthracene	•0:	<del>-</del>	0.010	10.0
50-32-8	Benzo(a)pyrere	-0.0	<del>-</del>	0.010	10.0
205-99-2	Benzoib)/fucranthene	16.6	<del>U</del>	0.010	10.0
191-24-2	Benzo(g,h, iper, ene	10.0	U	0.010	10.0
207-08-9	Benzojk)fluoranthene		Ü	0.010	10.0
111-91-1	Bis(2-Chloroethczy methane	• • • • • • • • • • • • • • • • • • • •	U	0.010	10.0
111-44-4	Bis(2-Chloroeth) lether	10.0	U	0.010	10.0
108-60-1	bis(2-Chloro:sopropy) ether	10.0	U	0.010	10.0
117-81-7	bis(2-ethylhexmonthalate	10.0	<u>U</u>	0.010	10.0
	made and he can in a second			0.0.0	-10.0

## 1B SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

.ab Name; GC	AL	Sample ID:	SKGW6510	09		
ab Code: LA0	24 Case No.:	Contract:				
SAS No.:	SDG No.: 204031909				<del></del>	
Matrix: Water		Lab Sample II	D: <u>204032</u>	20807		
	1000 Units: mL	Date Collected	d: 03/17/0	4 Time	: 1440	_
- Level: (low/med)		Date Received	d: 03/19/0	4		
	decanted: (Y/N)	Date Extracted	d: 3(2	L104		
GC Column: DE	3-5MS-30M ID: ,25 (mm)	Date Analyzed	d: 03/26/0	4 Time	e: 2206	
	tract Volume: 1000 (µL)	Dilution Factor	r: 1	Anal	yst: JAR3	
	: 1.0 (µL)					
	//N) N pH:	Analytical Met				_
o. a o.oumop. (.		Instrument ID:	MSSV2			_
CONCENTRATIO	ON UNITS: ug/L	Prep Batch:	271164	Analytical B	atch: 271781	_
CAS NO.	COMPOUND	RESULT	Q	MDL	PQL	
101-55-3	4-Bromophenyl-phenylether	10.0	U	0.010	10.0	7
85-68-7	Butylbenzylphthalate	10.0	U	0.010	10.0	7
86-74-8	Carbazole	10.0	U	0.010	10.0	7
218-01-9	Chrysene	10.0	U	0.010	10.0	ヿ
84-74-2	Di-n-butylphthalate	0.0 0.611	BJ	0.010	10.0	ZN [
117-84-0	Di-n-octylphthalate	10.0	1 0	0.010	10.0	us
53-70-3	Dibenz(a,h)anthracene	10.0	U	0.010	10.0	۳-"
132-64-9	Dibenzofuran	10.0	Ū	0.010	10.0	┥
34-66-2	Diethylphthalate	10.0	U	0.010	10.0	-
131-11-3	Dimethyl-phthalate	10.0	Ū	0.010	10.0	ᅱ
105-67-9	2,4-Dimethylphenol	10.0	Ū	0.010	10.0	(
206-44-0	Fluoranthene	10.0	U	0.010	10.0	-
36-73-7	Fluorene	10.0	Ū	0.010	10.0	
118-74-1	Hexachlorobenzene	10.0	<del>-</del>	0.010	10.0	~
37-68-3	Hexachlorobutadiene	10.0	U	0.010	10.0	-
77-47-4	Hexachlorocyclopentadiene	10.0	Ū	0,010	10.0	-
7-72-1	Hexachloroethane	10.0	Ū	0.010	10.0	┥
193-39-5	Indeno(1,2,3-cd)pyrene	10.0	Ü	0.010	10.0	┥
78-59-1	Isophorone	10.0	Ū	0.010	10.0	┥
1-20-3	Naphthalene	10.0	<del>-</del>	0.010	10.0	-
100-01-6	4-Nitroaniline	25.0	<del>-</del>	0.010	25.0	7
98-95-3	Nitrobenzene	10.0	<del></del>	0.010	10.0	-
100-02-7	4-Nitrophenol	25.0	U	0.010	25.0	ᅱ
37-86-5	Pentachlorophenol	25.0	U	0.010	25.0	
35-01-8	Phenanthrene	10.0	U	0.010	10.0	-{
108-95-2	Phenol	10.0	U	0.010	10.0	-{
129-00-0	Pyrene Pyrene	10.0	U	0.010	10.0	
321-64-7	N-Nitroso-di-n-propylamine	10.0	Ü	0.010	10.0	-
		10.0	U		10.0	
36-30-6 35-48-7	N-Nitrosodiphenylamine			0.010		-
7U-+O-1	o-Cresol	10.0	U	0.010	10.0	1

5/13/04 price

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# SEMINOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY DENTIFIED COMPOUNDS

GCAL				Sample D: SK	GW651009	
LA024	2	Case No.:		Contract	<del></del>	
		SEG No.:	204031909	Lab File iD: S5	036	
ator				Lab Sample ID:	20403220807	
ot:	un	ts:		Date Collected:	03/17/04 Te	me: <u>1440</u>
neď)				Date Received:	03/19/04	
not dec.				Date Extracted:	312106	
: RTX-5M	S-30	ID: .5	3 (mm	Date Analyzed:	03/26/04 Te	me: <u>2206</u>
d Extract V	olume:	:000	( µL	Dilution Factor:	An	alyst RLW
lume:	1.0	)	( µL	Prep Method: _	<del></del>	
p: (Y/N)	N	pH:		Analytica: Metho	d: SW-846 8270C	
-				Instrument ID:	MSSV2	
1O. (	OMPO	UND		RT	EST. CONC.	Q
No tic	s detecte	rd .				
	LA024  aler ol: ned) not dec. RTX-5M d Extract V tume: up: (Y/N) TICs Four	LA024 2  alter  col: Uni med)  not dec.  RTX-5MS-30  d Extract Volume:  lume: 1.0  pr: (Y/N) N  TICs Found: 0  INTRATION UNITS  NO. COMPO	LA024 2 Case No.: SDG No.: ster cd: Units: ned) not dec. RTX-5MS-30 ID: .5 d Extract Volume: 1000 tume: 1.0 pr (Y/N) N pH: TICs Found: 0 INTRATION UNITS	LA024   2   Case No.:	SDG No.: 204031909   Lab File ID: S5	SDG No.: 204031909   Lab File ID: S5036     Saler

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### 1D ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL	Sample ID: S	KGW58100	9	
Lab Code: LA024 Case No.:	Contract:			
Matrix: Water	SAS No.:		SDG No.:	204031909
Sample wt/vol: 1000 Units: mL	Lab Sample ID:	2040319	0901	
Level: (low/med)	Date Collected:	03/18/04	Time:	1148
% Moisture: decanted: (Y/N)	Date Received:	03/19/04		
GC Column: DB-608-30M ID: .53 (mm)	Date Extracted:	3/23/	04	
Concentrated Extract Volume: 1000 ( µL )	Date Analyzed:	04/01/04	Time:	0502
Soil Aliquot Volume: ( µL )	Dilution Factor:	1	Analys	t: TLS
Injection Volume: 1 ( µL )	Prep Method:			
GPC Cleanup: (Y/N) N pH:	Analytical Metho	od: OLM	O 4.2	
Prep Batch: 271129 Analytical Batch: 271697	Sulfur Cleanup:	(Y/N) N	Instrument I	D: GCS6A
CONCENTRATION UNITS: ug/L	Lab File ID:	20403	31/SV6024	
CAS NO. COMPOUND	RESULT	Q	MDL	RL
· · · · · · · · · · · · · · · · · · ·			···	
72-54-8 4,4'-DDD	0.100	J	0.00010	0.100
72-55-9 4,4'-DDE	0.100	U	0.00010	0.100
50-29-3 4,4'-DDT	0.100	υ	0.00010	0.100
309-00-2 Aldrin	0.050	U	0.00010	0.050
12674-11-2 Aroclor-1016	1.00	U	0.00010	1.00
11104-28-2 Aroclor-1221	2.00	U	0.00010	2.00
11141-16-5 Aroclor-1232	1.00	U	0.00010	1.00
53469-21-9 Aroclor-1242	1.00	U	0.00010	1.00
12672-29-6 Aroclor-1248	1.00	U	0.00010	1.00
11097-69-1 Aroclor-1254	1.00	Ų	0.00010	1.00
11096-82-5 Aroclor-1260	1.00	U	0.00010	1.00
60-57-1 Dieldrin	0.100	ប	0.00010	0.100
959-98-8 Endosulfan I	0.050	U	0.00010	0.050
33213-65-9   Endosulfan II	0.100	U	0.00010	0.100
1031-07-8 Endosulfan sulfate	0.100	U	0.00010	0.100
72-20-8 Endrin	0.100	U	0.00010	0.100
7421-93-4 Endrin aldehyde	0.100	U	0.00010	0.100
53494-70-5 Endrin ketone	0.100	U	0.00010	0.100
76-44-8 Heptachlor	0.050	υ	0.00010	0.050
1024-57-3 Heptachlor epoxide	0.050	U	0.00010	0.050
72-43-5 Methoxychlor	0.500	U	0.00010	0.500
8001-35-2 Toxaphene	5.00	U	0.00010	5.00
319-84-6 alpha-BHC	0.050	U	0.00010	0.050
5103-71-9 alpha-Chlordane	0.050	C	0.00010	0.050
319-85-7 beta-BHC	0.050	υ	0.00010	0.050
319-86-8 delta-BHC	0.050	U	0.00010	0.050
58-89-9 gamma-BHC (Lindane)	0.050	U	0.00010	0.050
5103-74-2 gamma-Chlordane	0.050	U	0.00010	0.050

## ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL	Sample D S	KG <b>W58DU</b>	P1009	
Lab Code: LA024 Case No.:				
Case No.			<del></del> -	
Matrix: Water	SAS No		SDG No.:	204031909
Sample w/Vol: 1000 Units ml.	Lab Sample ID	: 2040319	0902	
Level: (low/med)	Date Colleged	: 03/18/04	Time:	1208
% Moisture: decanted: (Y/N)	Date Received	: 03/19/04		
GC Column: <u>DB-608-30M</u> ID: .53 (mm)	Date Extracted	3 2	3104	
Concentrated Extract Volume: 1000 ( µL )	Date Analyzed	: 04/01/04	Time:	0530
Soil Aliquot Volume: (µL)			Analys	
Injection Valume: 1 (µL)			<del></del>	
GPC Cleanup: (Y/N) N pH:			0 4.2	
Prep Batch: 271129 Analytical Batch 271697				ID: GCS6A
	Lab File ID	•		
CONCENTRATION UNITS: Jg/L	Cab File (D	20103	31/340025	
CAS NO. COMPOUND	RESULT	Q	MDL	RL
72-54-8 4.4'-000	0.100	U	0.00010	0.100
72-55-9 4,4'-DDE	0.100	U	0.00010	0.100
50-29-3 4,4'-DDT	0.100	U	0.00010	0.100
309-00-2 Aldrin	0.050	Ü	0.00010	0.050
12674-11-2 Aractor-1016	1.00	U	0.00010	1.00
11104-28-2 Araclar-1221	2 00	Ü	0.00010	2.00
11141-16-5 Arador-1232	1.16	U	0.00010	1.00
53469-21-9 Aracior-1242	1.00	U	0.00010	1.00
12672-29-6 Aroctor-1248	1.00	U	0.00010	1.00
11097-69-1 Aroclor-1254	1,00	Ü	0.00010	1.00
11096-82-5 Arodor-1260	1.00	Ü	0.00010	1.00
60-57-1 Dieldrin	0.100	Ü	0.00010	0.100
959-98-8 Endosulfan I	0.050	٦	0.00010	0.050
33213-65-9 Endosulfan II	0.100	U	0.00010	0.100
1031-07-8 Endosulfan surfate	0.100	Ü	0,00010	0.100
72-20-8 Endrin	0.00	Ú	0.00010	0.100
7421-93-4 Endrin aldehyde	::::	U	0,00010	0.100
53494-70-5 Endrin ketone	0.100	Ü	0.00010	0,100
76-44-8 Heptachlor	0.050	Ū	0.00010	0.050
1024-57-3 Heptachlor epox de	0.050	<del></del>	0.00010	0.050
72-43-5 Methoxychlor	0.500	- i	0.00010	0.500
8001-35-2 Toxaphene	5.00	<del>-i-</del> f	0.00010	5.00
319-84-6 alpha-BHC	0.050	<del>- </del>	0.00010	0.050
5103-71-9 atpha-Chlordane	0 050	<del>- i - l</del>	0.00010	0.050
319-85-7 beta-BHC	0.250	<del>- i -  </del>	0.00010	0.050
319-86-8 delta-BHC	0.050	- 0	0.00010	0.050
58-89-9 gamma-BHC (Lindane)	0.55	<del>- i -  </del>	0.00010	0.050
5103-74-2 gamma-Chlordare	0.050	<del>- 5</del> -1	0.00010	0.050
	1 1		V.UUU IV I	v

## 1D ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL	Sample ID: S	KGW631009	9	
Lab Code: LA024 Case No.:	Contract:			
Matrix: Water	SAS No.:		SDG No.:	204031909
Sample wt/vol: 1000 Units: mL	Lab Sample ID:	20403190	0903	
Level: (low/med)	Date Collected:	03/18/04	Time:	1430
% Moisture: decanted: (Y/N)	Date Received:	03/19/04		
GC Column: DB-608-30M ID: .53 (mm)	Date Extracted:	312	3104	
Concentrated Extract Volume: 1000 ( µL )	Date Analyzed:	04/01/04	Time:	0558
Soil Aliquot Volume: ( µL )	Dilution Factor:	1	Analys	t: TLS
Injection Volume: 1 ( µL )	Prep Method:			
GPC Cleanup: (Y/N) N pH:	Analytical Meth	od: OLMC	0 4.2	_
Prep Batch: 271129 Analytical Batch: 271697	Sulfur Cleanup:	(Y/N) N	Instrument I	D: GCS6A
CONCENTRATION UNITS: ug/L	Lab File ID:	20403	31/SV6026	
CAS NO. COMPOUND	RESULT	Q	MDL	RL
72-54-8  4,4'-DDD	0.100	U	0.00010	0.100
72-55-9 4,4'-DDE	0.100	Ü	0.00010	0.100
50-29-3 4,4'-DDT	0.100	U	0.00010	0.100
309-00-2 Aidrin	0.050	Ü	0.00010	0.050
12674-11-2 Aroclor-1016	1.00	U	0.00010	1.00
11104-28-2 Arocior-1221	2.00	Ü	0.00010	2.00
11141-16-5 Aroclor-1232	1.00	Ü	0.00010	1.00
53469-21-9 Arocior-1242	1.00	Ü	0.00010	1.00
12672-29-6 Aroclor-1248	1.00	Ü	0.00010	1.00
11097-69-1 Aroclor-1254	1.00	Ü	0.00010	1.00
11096-82-5 Aroclor-1260	1.00		0.00010	1.00
60-57-1 Dieldrin	0.100	Ū	0.00010	0.100
959-98-8 Endosulfan I	0.050	Ü	0.00010	0.050
33213-65-9 Endosulfan II	0.100	U	0.00010	0.100
1031-07-8 Endosulfan sulfate	0.100	U	0.00010	0.100
72-20-8 Endrin	0.100	U	0.00010	0.100
7421-93-4 Endrin aldehyde	0.100	U	0.00010	0.100
53494-741- Land Lea Letone	0.100	U	0.00010	0.100
76-44 8) (18 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.050	U	0.00010	0.050
1024-174 September Wooxide	0.050	Ü	0.00010	0.050
72-43-5 Riestolyche	0.500	U	0.00010	0.500
8001-35-2 Toxaphene	\$.00	Ü	0.00010	5.00
319-84-6 alpha-BHC	0.050	Ū	0.00010	0.050
5103-71-9 alpha-Chlordane	0.050	U	0.00010	0.050
319-85-7 beta-BHC	0.050	U	0.00010	0.050
319-86-8 delta-BHC	0.050	U	0.00010	0.050
58-89-9 gamma-BHC (Lindane)	0.050	U	0.00010	0.050
5103-74-2 gamma-Chlordane	0.050	Ü	0.00010	0.050

# ORGANICS ANALYSIS DATE SHEET

Lab Name: GCAL	Sample ID: S	KGW611009	1	
Lab Code: LA024 Case No.:	Contract			
Matrix: Water	SAS No		SDG No.:	204031909
Sample w/vot 1000 Units mil.	Lab Sample ID.			
Levet: (lowlmed)	Date Collected:	03/18/04	Time:	1535
% Moisture: decanted: (Y/N)	Date Received:			
GC Column: D8-606-30M ID: .53 :mmi	Date Extracted:	3123	3/04	
Concentrated Extract Volume: 1000 (µL)				0627
Sail Aliquot Volume: ( µL )				t TLS
<del></del>				
Injection Volume: ( µL )	Analytical Metho		42	
Prep Batch: 271129 Analytical Batch: 271697			_	IU: GCS6A
CONCENTRATION UNITS: ug/L	Lab File D	204033	1/SV6027	
CAS NO. COMPOUND	RESULT	Q	MDL	RL
72-54-8 4.4'-000	a,*ee	U	0.00010	0.100
72-55-9 4,4'-DOE	o : :0	υ	0.00010	0.100
50-29-3 4,4'-DOT	3.00	IJ	0.00010	0.100
309-00-2 Aldrin	0.050	U	0.00010	0.050
12674-11-2 Araclar-1016	1 02	บ	0.00010	1.00
11104-28-2 Araclor-1221	2 00	U	0.00010	2.00
11141-16-5 Aroclor-1232	1.00	Ū	0.00010	1.00
53469-21-9 Araciar-1242	1.00	IJ	0.00010	1.00
12672-29-6 Arador-1248	1.00	U	0.00010	1.00
11097-89-1 Aroclor-1254	1.00	U	0.00010	1.00
11096-82-5 Aroclor-1260	1.00	J	0.00010	1.00
50-57-1 Oieldrin	0.100	U	0.00010	0.100
959-98-8 Endosulfan I	0.050	U	0.00010	0.050
33213-65-9 Endosulfan II	0.100	Ü	0.00010	0.100
1031-07-8 Endosulfan sulfate	0.100	Ü	0.00010	0.100
72-20-8 Endrin	0.100	U	0.00010	0.100
7421-93-4 Endrin aldehyde	0.101	U	0.00010	0.100
53494-70-5 Endrin ketone	0.100	U	0.00010	0.100
76-44-8 Heptachlor	0.050	J	0.00010	0.050
1024-57-3 Heptachlor epoxice	::::::	U	0.00010	0.050
2-43-5 Methoxychlor	0.500	U	0.00010	0.500
9001-35-2 Toxaphene	5.00	U	0.00010	5.00
319-84-6 alpha-BHC	0.350	U	0.00010	0.050
5103-71-9 alpha-Chlordane	0.050	Ū	0.00010	0.050
319-85-7 beta-BHC	0.050	<del>-</del> <del>u</del>	0.00010	0.050
319-86-8 delta-BHC	0.050	<del></del>	0.00010	0.050
58-89-9 gamma-BHC (Lincare)	2 153	U	0.00010	0.050
5103-74-2 camma Chiorrace			0.00010	0.050

5/24/09-1

## 1D ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL	: GCAL Sample ID: SKGWFB1009				
Lab Code: LA024 Case No.:	Contract:				
Matrix: Water	SAS No.: SDG No.: 204031909				
Sample wt/vol: 1000 Units: mL	Lab Sample ID: 20403190908				
Level: (low/med)	Date Collected: 03/18/04 Time: 1702				
% Moisture: decanted: (Y/N)	Date Received: 03/19/04				
GC Column: DB-608-30M ID: .53 (mm)	Date Extracted: 3/2-3/04				
Concentrated Extract Volume: 1000 ( µL )	Date Analyzed: 04/01/04 Time: 0916				
Soil Aliquot Volume: ( µL )	Dilution Factor: 1 Analyst: TLS				
Injection Volume: 1 ( µL )	Prep Method:				
GPC Cleanup: (Y/N) N pH:	Analytical Method: OLMO 4.2				
Prep Batch: 271129 Analytical Batch: 271697	Sulfur Cleanup: (Y/N) N Instrument ID: GCS6A				
CONCENTRATION UNITS: ug/L	Lab File ID: 2040331/SV6033				
CAS NO. COMPOUND	RESULT Q MDL RL				
72-54-8 [4,4'-DDD	0.100 U 0.00010 0.100				
72-55-9 4,4'-DDE	0.100 U 0.00010 0.100				
50-29-3 4,4'-DDT	0.100 U 0.00010 0.100				
309-00-2 Aldrin	0.050 U 0.00010 0.050				
12674-11-2 Aroclor-1016	1.00 U 0.00010 1.00				
11104-28-2   Aroclor-1221	2.00 U 0.00010 2.00				
11141-16-5 Aroclor-1232	1.00 U 0.00010 1.00				
53469-21-9 Aroclor-1242	1.00 U 0.00010 1.00				
12672-29-6 Aroclor-1248	1.00 U 0.00010 1.00				
11097-69-1 Aroclor-1254	1.00 U 0.00010 1.00				
11096-82-5 Aroclor-1260	1.00 U 0.00010 1.00				
60-57-1 Dieldrin	0.100 U 0.00010 0.100				
959-98-8 Endosulfan I	0.050 U 0.00010 0.050				
33213-65-9 Endosulfan II	0.100 U 0.00010 0.100				
1031-07-8 Endosulfan sulfate	0.100 U 0.00010 0.100				
72-20-8 Endrin	0.100 U 0.00010 0.100				
7421-93-4 Endrin aldehyde	0.100 U 0.00010 0.100				
53494-70-5 Endrin ketone	0.100 U 0.00010 0.100				
76-44-8 Heptachlor	0.050 U 0.00010 0.050				
1024-57-3 Heptachlor epoxide	0.050 U 0.00010 0.050				
72-43-5 Methoxychlor	0.500 U 0.00010 0.500				
8001-35-2 Toxaphene	5.00 U 0.00010 5.00				
319-84-6 alpha-BHC	0.050 U 0.00010 0.050				
5103-71-9 alpha-Chlordane	0.050 U 0.00010 0.050				
319-85-7 beta-BHC	0.050 U 0.00010 0.050				
319-86-8 delta-BHC	0.050 U 0.00010 0.050				
58-89-9 gamma-BHC (Lindane)	0.050 U 0.00010 0.050				
5103-74-2 gamma-Chlordane	0.050 U 0.00010 0.050				

# ORGANIOS ANALYSIS DATA SHEET

Lab Name: GCAL	Sample :D St	(GW06R100	9	
Lab Code: LA024 Case No.:	Contract			
Metric: Water	SAS No		SDC No :	204031000
			_	204031309
Sample wi/voi: 1000 Units: mL	Lab Sample (D:	204032206	<u>901</u>	
Level: (low/med)	Date Collected:	03/16/04	Time:	1458
% Moisture: decanted: (Y/N)	Date Received:	03'19/04	<del></del>	
GC Column: D8-608-30M ID: .53 (mm)	Date Extracted:	3123	104	
Concentrated Extract Volume: 1000 (pL)				0405
<del></del>				
Soll Aliquot Valume: (µL)	Diution - actor:	1	Analys	st TLS
Injection Volume: 1 ( µL i	Prep Method:			
GPC Cleanup: (Y/N) N pH:	Analytical Metho	d: OLMO	4.2	
Prep Batch: 271129 Analytical Batch: 271697	Sulfur Cleanup:	(Y/N) N_	Instrument	ID: GCS6A
	Lab File iD:		_	
CONCENTRATION UNITS: ug/L				
CAS NO. COMPOUND	RESULT	Q	MDL	RL
72-54-8 4.4-000	0.100	Ū	0.00010	0.100
72-55-9 4,4'-DDE	0.100	Ü	0.00010	0.100
50-29-3 4,4'-DDT	0.100	U	0.00010	0.100
109-00-2 Aldrin	0.050	U	0.00010	0.050
12674-11-2 Arodor-1016	• 00	U	0.00010	1.00
11104-28-2 Arodor-1221	2.00	U	0.00010	2.00
1141-16-5 Arodor-1232	1.00	IJ	0.00010	1.00
3469-21-9 Arador-1242	• 03	U	0.00010	1.00
2672-29-6 Aroclor-1248	1 00	U	0.00010	1.00
1097-89-1 Aroclor-1254	1.00		0.00010	1.00
1096-82-5 Aractor-1260	1 00	U	0.00010	1.00
10-57-1 Cleidrin	3 100	U	0.00010	0.100
IS9-98-8 Endosulfan I	0.050	U	0.00010	0.050
3213-65-9 Endosulfan II	3 * 00	υ	0.00010	0.100
031-07-8 Endosulfan surfate	a.100	U	0.00010	0.100
2-20-8 Endrin	0.100	<del>-</del>	0.00010	0.100
421-93-4 Endrin aldehyde	0.100	<del>U</del>	0.00010	0.100
3494-70-5 Endrin ketone	0.150	<del>- u</del> +	0.00010	0.100
76-44-8 Heptachlor	3 350	<del>-</del> <del>0</del>	0.00010	0.050
024-57-3 Heptachior epoxide	0.050	Ü	0.00010	0.050
	1.511	U		0.500
	5 10		0.00010	
1001-35-2 Toxaphene		<u>U</u>	0.00010	5.00
119-84-6 alpha-BHC	0.353	U	0.00010	0.050
103-71-9 alpha-Chlordane	0.050	<u>U</u>	0.00010	0.050
119-85-7 beta-BHC	0.050	U	0.00010	0.050
19-86-8 delta-BHC	0.050	U	0.00010	0.050
8-89-9 gamme-BHC (Lincane)	0.050	U	0.00010	0.050
103-74-2 gamma-Chlordane	0.050	U	0.00010	0.050

5/24/04

## 1D ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL	Sample ID: S	KGW07R1	009	
Lab Code: LA024 Case No.:	Contract:			
Matrix: Water			SDG No.:	
Sample wt/vol: 1000 Units: mL	Lab Sample ID:	2040322	20802	
Levei: (low/med)	Date Collected:	03/16/04	Time:	1552
% Moisture: decanted: (Y/N)	Date Received:	03/19/04	<b>I</b>	
GC Column: DB-608-30M ID: .53 (mm)	Date Extracted:	3/27	104	
Concentrated Extract Volume: 1000 ( µL )	Date Analyzed:	04/01/04	Time:	0434
Soil Aliquot Volume: ( µL )	Dilution Factor:	1	Analys	st: TLS
Injection Volume: 1 ( µL )	Prep Method:			
GPC Cleanup: (Y/N) N pH:	Analytical Meth	od: OLM	O 4.2	
Prep Batch: 271129 Analytical Batch: 271697	Sulfur Cleanup:	(Y/N) N	Instrument	ID: GCS6A
CONCENTRATION UNITS: ug/L	Lab File ID:	20403	31/SV6023	
CAS NO. COMPOUND	RESULT	Q	MDL	RL
72-54-8 4,4'-DDD	0.100	U	0.00010	0.100
72-55-9 4,4'-DDE	0.100	J	0.00010	0.100
50-29-3 4,4'-DDT	0.100	U	0.00010	0.100
309-00-2 Aldrin	0.050	U	0.00010	0.050
12674-11-2 Aroclor-1016	1.00	U	0.00010	1.00
11104-28-2 Aroclor-1221	2.00	υ	0.00010	2.00
11141-16-5 Aroclor-1232	1.00	U	0.00010	1.00
53469-21-9 Aroclor-1242	1.00	U	0.00010	1.00
12672-29-6 Aroclor-1248	. 1.00	U	0.00010	1.00
11097-69-1 Aroclor-1254	1.00	U	0.00010	1.00
11096-82-5 Aroclor-1260	1.00	U	0.00010	1.00
60-57-1 Dieldrin	0.100	U	0.00010	0.100
959-98-8 Endosulfan I	0.050	Ü	0.00010	0.050
33213-65-9 Endosulfan II	0.100	Ü	0.00010	0.100
1031-07-8 Endosulfan sulfate	0.100	U	0.00010	0.100
72-20-8 Endrin	0.100	U	0.00010	0.100
7421-93-4 Endrin aldehyde	0.100	U	0.00010	0.100
53494-70-5 Endrin ketone	0.100	U	0.00010	0.100
76-44-8 Heptachlor	0.050	U	0.00010	0.050
1024-57-3 Heptachlor epoxide	0.050	U	0.00010	0.050
72-43-5 Methoxychlor	0.500	U	0.00010	0.500
8001-35-2 Toxaphene	5.00	U	0.00010	5.00
319-84-6 alpha-BHC	0.050	U	0.00010	0.050
5103-71-9 alpha-Chlordane	0.050	U	0.00010	0.050
319-85-7 beta-BHC	0.050	U	0.00010	0.050
319-86-8 delta-BHC	0.050	U	0.00010	0.050
58-89-9 gamma-BHC (Lindane)	0.050	U	0.00010	0.050
5103-74-2 gamma-Chlordane	0.050	U	0.00010	0.050

## ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL_	Sample D S	KGW591009		
Lab Code: LA024 Case No.:	Contract	-		
Metric Weter	SAS No.	· · · · · · · · · · · · · · · · · · ·	SDG No.:	204031909
Sample wifvol: 1000 Units: mL	Lab Sample ID:			
Level: (lowimed)	Date Collected:		_	1060
				1030
% Moisture: decanted: (Y/N)	Date Received:			
<b>GC Column: D8-606-30M</b> ID: .53 (mm)	Date Extracted:	312	3104.	
Concentrated Extract Volume. 1000 ( µL )	Date Analyzed:	04/01/04	Time:	0944
Soil Aliquot Volume: (µL)	Dilution Factor.	1	Analys	t TLS
Injection Volume: 1 (µL)				
GPC Cleanup: (Y/N) N pH:			4.2	
Prep Betch: 271129 Analytical Batch: 271697				D: GCS6A
	Lab File (D)			
CONCENTRATION UNITS: Ug/L				
CAS NO. COMPOUND	RESULT	Q	MDL	RL
72-54-8 4,4'-000	3,100	U	0.00010	0.100
72-55-9 4,4'-DDE	3.10c	U	0.00010	0.100
50-29-3 4,4'-DOT	3 *00	U	0.00010	0.100
309-00-2 Aldrin	3 05C	U	0.00010	0.050
12674-11-2 Aroclor-1016	• 00	U	0.00010	1.00
11104-28-2 Arodor-1221	2 00	U	0.00010	2.00
11141-16-5 Aroctor-1232	. 00	U	0.00010	1.00
53469-21-9 Arocior-1242	1.00	U	0.00010	1.00
12672-29-6 Aroclor-1248	1.00	U	0.00010	1.00
11097-69-1 Aroclor-1254	1 00	U	0.00010	1.00
11098-82-5 Aracior-1260	1.55	υ	0.00010	1.00
60-57-1 Dieldrin	0 100	U	0.00010	0.100
959-98-8 Endosulfan I	0.050	U	0.00010	0.050
33213-65-9 Endosulfan ii	o 100	- Ū	0.00010	0.100
1031-07-8 Endosulfan suifate	9.700	<del>-                                    </del>	0.00010	0,100
72-20-8 Endrin	0.100	<del></del>	0.00010	0.100
7421-93-4 Endrin aldehyde	0.100	<del>U</del>	0.00010	0,100
53494-70-5 Endrin ketone	2.120	<del>-</del> U	0.00010	0.100
76-44-8 Heptachior	0.050	<del>-</del> U	0.00010	0.050
1024-57-3 Heptachior epox de	0.050	U	0.00010	0.050
72-43-5 Methoxychior	0.500	U	0.00010	0.500
8001-35-2 Toxaphene	5.00	<del>- 0</del>	0.00010	5.00
319-84-6 alpha-8HC	0.050	<del></del> 5	0.00010	0.050
	0.000		<del></del>	
5103-71-9 alpha-Chlordane		U	0.00010	0.050
319-85-7 beta-8HC	0.050	U	0.00010	0.050
319-86-8 delta-BHC	0.050	U .	0.00010	0.050
58-89-9 gamma-BHC (Lindane)	0.050	<u> </u>	0.00010	0.050
5103-74-2 loamma-Chlordane	1 051	1.1	0.00010	0.050

### 1D ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL	Sample ID: SKG	W601009		
Lab Code: LA024 Case No.:	Contract:			
Matrix: Water	SAS No.:		SDG No.:	204031909
Sample wt/vol: 1000 Units: mL	Lab Sample ID:			
Level: (low/med)	Date Collected:	03/17/04	Time:	1115
% Molsture: decanted: (Y/N)	Date Received: _(	03/19/04	·	
GC Column: DB-608-30M ID: .53 (mm)	Date Extracted: _	3/23/04		
Concentrated Extract Volume: 1000 ( µL )	Date Analyzed: _0	04/01/04	Time:	1013
Soil Aliquot Volume: ( µL )	Dilution Factor:	1	Analyst	: TLS
Injection Volume:1 ( µL )	Prep Method:	•	<del></del>	
GPC Cleanup: (Y/N) N pH:	Analytical Method:	OLMO 4.2		
Prep Batch: 271129 Analytical Batch: 271697	_ Sulfur Cleanup: (Y/	/N) <u>N</u> 1	nstrument II	D: GCS6A
CONCENTRATION UNITS: ug/L	Lab File ID:	2040331/SV6	6035	
CAS NO. COMPOUND	RESULT	Q i	MDL	RL
72-54-8 4,4'-DDD	0.100	U O	.00010	0.100
72-55-9 4,4'-DDE	0.100	U O	.00010	0.100
50-29-3 4,4'-DDT	0.100	U 0	.00010	0.100
309-00-2 Aldrin	0.050	U 0	.00010	0.050
12674-11-2 Aroclor-1016	1.00	U 0	.00010	1.00
11104-28-2 Aroclor-1221	2.00	U 0	.00010	2.00
11141-16-5 Aroclor-1232	1.00	U 0	.00010	1.00
53469-21-9 Aroclor-1242	1.00	UO	.00010	1.00
12672-29-6 Aroclor-1248	1.00	U 0	.00010	1.00
11097-69-1 Aroclor-1254	1.00	U 0	.00010	1.00
11096-82-5 Aroclor-1260	1.00	U O	.00010	1.00
60-57-1 Dieldrin	0.100	U 0.	.00010	0.100
959-98-8 Endosulfan I	0.050	<del></del>	00010	0.050
33213-65-9 Endosulfan II	0.100		00010	0.100
1031-07-8 Endosulfan sulfate	0.100	··	.00010	0.100
72-20-8 Endrin	0.100		00010	0.100
7421-93-4 Endrin aldehyde	0.100		00010	0.100
53494-70-5 Ending 19 19 19 19 19 19 19 19 19 19 19 19 19	0.100		00010	0.100
78-44-8 Heptadia	0.050		00010	0.050
1024-57-3 Heptardian epoxide	0.050		00010	0.050
72-43-5 Methoxydriar	0.500		00010	0.500
8001-35-2 Toxaphene	5.00		00010	5.00
319-84-6  alpha-BHC	0.050		00010	0.050
5103-71-9 alpha-Chlordane	0.050		00010	0.050
319-85-7 beta-BHC	0.050		00010	0.050
319-86-8 delta-BHC	0.050		00010	0.050
58-89-9 gamma-BHC (Lindane)	0.050		00010	0.050
5103-74-2 gamma-Chlordane	0.050	U 0.	00010	0.050

## CRGANCS ANALYSIS DATE SHEET

Lab Name: GCAL		Sample D: Si	KGW62A100	9	
Lab Code: LA024 Case No.:		Contract:			
Matrix: Water		SAS No		SDG No.:	204031909
Sample w#volt: 1000 Units: mL		Lab Sample ID:	20403220	805	
Level: (low/med)		Date Collected:	03/17/04	Time:	1150
% Moisture: decanted: (Y f	N)	Date Received:	03/19/04		
GC Column: DB-608-30M ID:	53 (पका)	Date Extracted:	3/23	104-	
Concentrated Extract Volume. 1000	( µL )	Date Analyzed:	04/01/04	Time:	1041
Soil Aliquot Volume:	(pL)	Dilution Factor:	1	Analys	t TLS
Injection Volume: 1					
GPC Cleanup: (Y/N) N pH:		Analytical Metho	od: OLMO	4.2	
Prep Batch: 271129 Analytical Ba	271697	Suffur Cleanup:	(Y/N) <u>N</u>	Instrument i	D: GCS6A
CONCENTRATION UNITS: ug/L		Lap File ID:	204033	1/SV6036	
CAS NO. COMPOUND		RESULT	Q	MDL	RL
72-54-8  4.4'-DOD	1	36.3	U	0.00010	0.100
72-55-9 4,4'-DDE		C.100	IJ	0.00010	0.100
50-29-3 4,4'-DOT		C. * DD	U	0.00010	0.100
309-00-2 Aldrin		0.050	U	0.00010	0.050
12674-11-2 Aroclor-1016		1.00	U	0.00010	1.00
11104-28-2 Aroclor-1221		2.00	U	0.00010	2.00
11141-16-5 Aroctor-1232		1.90	U	0.00010	1.00
53469-21-9 Aroctor-1242	<del></del>	1.00	U	0.00010	1.00
12672-29-6 Arocior-1248		1.00	U	0.00010	1.00
11007-69-1 Aroctor-1254		1.00	U	0.00010	1.00
11096-82-5 Aroclar-1260		1.00	Ü	0.00010	1.00
60-57-1 Oieldrin		3.150	<del>-i</del>	0.00010	0.100
950-96-8 Endosulfan I		0.050	<del>u</del>	0.00010	0.050
33213-65-9 Endosulfan II	<del></del> _	0.100	<del>- U</del>	0.00010	0.100
1031-07-8 Endosulfan surfate	<del></del>	0.100	Ü	0.00010	0.100
72-20-8 Endrin	<del></del>	0.100	<del>- i -  </del>	0.00010	0.100
7421-93-4 Endrin aldehyde	<del></del>	0.100	<del>-</del>	0.00010	0,100
53494-70-5 Endrin ketone		2.10	U	0.00010	0.100
76-44-8 Heptachlor		2.050	U	0.00010	0.050
1024-57-3 Heptachior epox de		3.050	U	0.00010	0.050
72-43-5 Methoxychlor		3 530	<del>- U</del>	0.00010	0.500
8001-35-2 Toxaphene		5.00	U	0.00010	5.00
319-84-6 alpha-BHC		0.050	U	0.00010	0.050
	<del></del>	0.050	U	0.00010	0.050
319-85-7 beta-8HC		0.050	U	0.00010	0.050
319-86-8 delta-BHC		0.050	U	0.00010	0.050
58-89-9 gamma-BHC (Lindane)	<del></del>	0.050	U	0.00010	0.050
5103-74-2 gamma-Chlordane		0.050	U	0.00010	0.050

## 1D ORGANICS ANALYSIS DATA SHEET

Lab Code:   LA024   Case No.:   Contract:   SDG No.:   204031909	Lab Name: GCAL	Sample ID: S	KGW6410	09	
Sar No.   Sar	Lab Code: LA024 Case No.:	Contract:			
Date Collected: 0.3/17/04   Time: 1410		SAS No.:		SDG No.:	204031909
Moisture:   decanted: (Y/N)   Date Received:   03/19/04	Sample wt/vol: 1000 Units: mL	Lab Sample ID	: 2040322	20806	
% Moisture:	Level: (low/med)	Date Collected	: 03/17/04	Time:	1410
Date Analyzed:   O4/01/04   Time:   1109		Date Received	: 03/19/04	ļ	
Soil Aliquot Volume:	GC Column: DB-608-30M ID:53 (mm)	Date Extracted	: 312	3104	
Injection Volume: 1	Concentrated Extract Volume: 1000 ( µL )	Date Analyzed:	: 04/01/04	Time:	1109
Injection Volume:	Soil Aliquot Volume: ( µL )	Dilution Factor:	: <u>1</u>	Analys	t: TLS
Prep Batch: 271129	injection Volume: 1 ( µL )	Prep Method:			
CONCENTRATION UNITS: Ug/L  CAS NO. COMPOUND  RESULT  Q  MDL  RL  72-54-8  4,4'-DDD  0.100  0.100  0.00010  0.100  0.00010  0.100  0.00010  0.100  0.50-29-3  4,4'-DDT  0.100  0.0050  0.100  0.0050  12674-11-2  Arccior-1018  1.00  0.00010  1.00  11104-28-2  Arccior-1221  2.00  0.00010  1.00  13469-21-9  Arccior-1232  1.00  0.00010  1.00  12672-29-8  Arccior-1242  1.00  0.00010  1.00  12672-29-8  Arccior-1248  1.00  0.00010  1.00  11097-69-1  Arccior-1260  1.00  0.00010  1.00  11098-82-5  Arccior-1260  1.00  0.00010  1.00  0.00010  0.00010  1.00  0.00010  1.00  0.00010  1.00  0.00010  1.00  0.00010  1.00  0.00010  1.00  0.00010  0.00010  1.00  0.00010  0.	GPC Cleanup: (Y/N) N pH:	Analytical Meth	od: OLM	O 4.2	
CAS NO.         COMPOUND         RESULT         Q         MDL         RL           72-54-8         4,4'-DDD         0.100         U         0.00010         0.100           72-55-9         4,4'-DDE         0.100         U         0.00010         0.100           50-29-3         4,4'-DDT         0.100         U         0.00010         0.100           309-00-2         Addrin         0.050         U         0.00010         0.050           12674-11-2         Aroclor-1016         1.00         U         0.00010         1.00           11141-16-5         Aroclor-1221         2.00         U         0.00010         2.00           11141-16-5         Aroclor-1232         1.00         U         0.00010         1.00           12672-29-6         Aroclor-1242         1.00         U         0.00010         1.00           12672-29-6         Aroclor-1248         1.00         U         0.00010         1.00           11097-69-1         Aroclor-1254         1.00         U         0.00010         1.00           11098-82-5         Aroclor-1260         1.00         U         0.00010         1.00           11099-89-8-8         Endosulfan I         0.050	Prep Batch: 271129 Analytical Batch: 271697	Sulfur Cleanup:	(Y/N) N	Instrument I	D: GCS6A
72-54-8	CONCENTRATION UNITS: ug/L	Lab File ID:	20403	31/SV6037	
72-55-9         4,4'-DDE         0.100         U         0.00010         0.100           50-29-3         4,4'-DDT         0.100         U         0.00010         0.100           309-0-2         Aldrin         0.050         U         0.00010         0.050           12674-11-2         Aroclor-1016         1.00         U         0.00010         1.00           1104-28-2         Aroclor-1221         2.00         U         0.00010         2.00           11141-16-5         Aroclor-1232         1.00         U         0.00010         1.00           53469-21-9         Aroclor-1242         1.00         U         0.00010         1.00           11097-99-1         Aroclor-1248         1.00         U         0.00010         1.00           11097-99-1         Aroclor-1254         1.00         U         0.00010         1.00           11097-99-1         Aroclor-1260         1.00         U         0.00010         1.00           11097-99-1         Aroclor-1260         1.00         U         0.00010         1.00           60-57-1         Dieldrin         0.100         U         0.00010         1.00           959-98-8         Endosulfan I         0.050	CAS NO. COMPOUND	RESULT	Q	MDL	RL
72-55-9	72-54-8 [4.4'-DDD	0.100	ΙŪ	0.00010	0.100
50-29-3	<u> </u>		<del>- ū -</del>	<del></del>	
309-00-2   Aldrin   0.050   U 0.00010   0.050     12674-11-2   Aroclor-1016   1.00   U 0.00010   1.00     1104-28-2   Aroclor-1221   2.00   U 0.00010   2.00     11141-16-5   Aroclor-1232   1.00   U 0.00010   1.00     53469-21-9   Aroclor-1242   1.00   U 0.00010   1.00     12672-29-6   Aroclor-1248   1.00   U 0.00010   1.00     1097-69-1   Aroclor-1254   1.00   U 0.00010   1.00     11097-69-1   Aroclor-1254   1.00   U 0.00010   1.00     11098-82-5   Aroclor-1260   1.00   U 0.00010   1.00     1059-98-8   Endosulfan   0.100   U 0.00010   0.100     539-98-8   Endosulfan   0.050   U 0.00010   0.100     1031-07-8   Endosulfan   0.100   U 0.00010   0.100     1031-07-8   Endosulfan   0.100   U 0.00010   0.100     1031-07-8   Endrin   0.100   U 0.00010   0.100     7421-93-4   Endrin   0.100   U 0.00010   0.100     7421-93-4   Endrin   Endrin   0.100   U 0.00010   0.100     7421-93-4   Endrin   Endrin   0.100   U 0.00010   0.100     7544-8   Heptachlor   0.050   U 0.00010   0.050     1024-57-3   Heptachlor   0.050   U 0.00010   0.500     72-43-5   Methoxychlor   0.500   U 0.00010   0.500     319-84-6   alpha-BHC   0.050   U 0.00010   0.050     319-84-8   delta-BHC   0.050   U 0.00010   0.050     319-86-8   delta-BHC   0.050   U 0.00010   0.050				<del></del>	<del> </del>
12674-11-2   Aroclor-1018				<del></del>	
1104-28-2   Aroctor-1221   2.00   U   0.00010   2.00   11141-16-5   Aroctor-1232   1.00   U   0.00010   1.00   1	l	<del></del>		<del></del>	
11141-16-5   Aroclor-1232   1.00   U   0.00010   1.00		<del></del>		<del></del>	
53469-21-9         Aroclor-1242         1.00         U         0.00010         1.00           12672-29-6         Aroclor-1248         1.00         U         0.00010         1.00           11097-69-1         Aroclor-1254         1.00         U         0.00010         1.00           11096-82-5         Aroclor-1260         1.00         U         0.00010         1.00           60-57-1         Dieldrin         0.100         U         0.00010         0.100           959-98-8         Endosulfan I         0.050         U         0.00010         0.050           33213-65-9         Endosulfan sulfate         0.100         U         0.00010         0.100           1031-07-8         Endosulfan sulfate         0.100         U         0.00010         0.100           72-20-8         Endrin         0.100         U         0.00010         0.100           72-20-8         Endrin aldehyde         0.100         U         0.00010         0.100           72-20-8         Endrin ketone         0.100         U         0.00010         0.100           72-20-8         Endrin ketone         0.0100         U         0.00010         0.100           72-20-8         Endrin keton					
12672-29-6   Aroclor-1248					
11097-69-1         Aroctor-1254         1.00         U         0.00010         1.00           11096-82-5         Aroctor-1260         1.00         U         0.00010         1.00           60-57-1         Dieldrin         0.100         U         0.00010         0.100           959-98-8         Endosulfan I         0.050         U         0.00010         0.050           33213-65-9         Endosulfan sulfate         0.100         U         0.00010         0.100           1031-07-8         Endosulfan sulfate         0.100         U         0.00010         0.100           72-20-8         Endrin         0.100         U         0.00010         0.100           72-20-8         Endrin aldehyde         0.100         U         0.00010         0.100           72-24-3-3         Heptachlor         0.050         U         0.00010         0.050           1024-57-3         Heptac	40070 00 0 41 4040	4.00			<b></b>
11098-82-5         Aroclor-1260         1.00         U         0.00010         1.00           60-57-1         Dieldrin         0.100         U         0.00010         0.100           959-98-8         Endosulfan I         0.050         U         0.00010         0.050           33213-65-9         Endosulfan sulfate         0.100         U         0.00010         0.100           1031-07-8         Endosulfan sulfate         0.100         U         0.00010         0.100           72-20-8         Endrin         0.100         U         0.00010         0.100           7421-93-4         Endrin aldehyde         0.100         U         0.00010         0.050           1024-57-3         Heptachlor         0.050	<u></u>	<del></del>		<del></del>	
60-57-1         Dieldrin         0.100         U         0.00010         0.100           959-98-8         Endosulfan I         0.050         U         0.00010         0.050           33213-65-9         Endosulfan III         0.100         U         0.00010         0.100           1031-07-8         Endosulfan sulfate         0.100         U         0.00010         0.100           72-20-8         Endrin         0.100         U         0.00010         0.100           7421-93-4         Endrin aldehyde         0.100         U         0.00010         0.100           7421-93-4         Endrin ketone         0.100         U         0.00010         0.100           7421-93-4         Endrin ketone         0.100         U         0.00010         0.100           7421-93-4         Endrin ketone         0.050         U         0.00010         0.100           76-44-8         Heptachlor         0.050         U         0.00010         0.050           1024-57-3         Heptachlor epoxide         0.050         U         0.00010         0.050           72-43-5         Methoxychlor         0.500         U         0.00010         0.500           8001-35-2         Toxa	<u> </u>				
959-98-8         Endosulfan I         0.050         U         0.00010         0.050           33213-65-9         Endosulfan III         0.100         U         0.00010         0.100           1031-07-8         Endosulfan sulfate         0.100         U         0.00010         0.100           72-20-8         Endrin         0.100         U         0.00010         0.100           7421-93-4         Endrin aldehyde         0.100         U         0.00010         0.100           53494-70-5         Endrin ketone         0.100         U         0.00010         0.100           76-44-8         Heptachlor         0.050         U         0.00010         0.050           1024-57-3         Heptachlor epoxide         0.050         U         0.00010         0.050           72-43-5         Methoxychlor         0.500         U         0.00010         0.500           8001-35-2         Toxaphene         5.00         U         0.00010         5.00           319-84-6         alpha-BHC         0.050         U         0.00010         0.050           5103-71-9         alpha-Chlordane         0.050         U         0.00010         0.050           319-86-8         delta-				<del> </del>	<u> </u>
33213-65-9   Endosulfan II   0.100   U 0.00010   0.100     1031-07-8   Endosulfan sulfate   0.100   U 0.00010   0.100     72-20-8   Endrin   0.100   U 0.00010   0.100     7421-93-4   Endrin aldehyde   0.100   U 0.00010   0.100     53494-70-5   Endrin ketone   0.100   U 0.00010   0.100     76-44-8   Heptachlor   0.050   U 0.00010   0.050     1024-57-3   Heptachlor epoxide   0.050   U 0.00010   0.050     72-43-5   Methoxychlor   0.500   U 0.00010   0.500     8001-35-2   Toxaphene   5.00   U 0.00010   5.00     319-84-6   alpha-BHC   0.050   U 0.00010   0.050     5103-71-9   alpha-Chlordane   0.050   U 0.00010   0.050     319-85-7   beta-BHC   0.050   U 0.00010   0.050     319-86-8   delta-BHC   0.050   U 0.00010   0.050     58-89-9   gamma-BHC (Lindane)   0.050   U 0.00010   0.050					
1031-07-8         Endosulfan sulfate         0.100         U         0.00010         0.100           72-20-8         Endrin         0.100         U         0.00010         0.100           7421-93-4         Endrin aldehyde         0.100         U         0.00010         0.100           53494-70-5         Endrin ketone         0.100         U         0.00010         0.100           76-44-8         Heptachlor         0.050         U         0.00010         0.050           1024-57-3         Heptachlor epoxide         0.050         U         0.00010         0.050           72-43-5         Methoxychlor         0.500         U         0.00010         0.500           8001-35-2         Toxaphene         5.00         U         0.00010         5.00           319-84-6         alpha-BHC         0.050         U         0.00010         0.050           5103-71-9         alpha-Chlordane         0.050         U         0.00010         0.050           319-85-7         beta-BHC         0.050         U         0.00010         0.050           319-86-8         delta-BHC         0.050         U         0.00010         0.050           58-89-9         gamma-BHC (Lindane			U	<del> </del>	
72-20-8         Endrin         0.100         U         0.00010         0.100           7421-93-4         Endrin aldehyde         0.100         U         0.00010         0.100           53494-70-5         Endrin ketone         0.100         U         0.00010         0.100           76-44-8         Heptachlor         0.050         U         0.00010         0.050           1024-57-3         Heptachlor epoxide         0.050         U         0.00010         0.050           72-43-5         Methoxychlor         0.500         U         0.00010         0.500           8001-35-2         Toxaphene         5.00         U         0.00010         5.00           319-84-6         alpha-BHC         0.050         U         0.00010         0.050           5103-71-9         alpha-Chlordane         0.050         U         0.00010         0.050           319-85-7         beta-BHC         0.050         U         0.00010         0.050           319-86-8         delta-BHC         0.050         U         0.00010         0.050           58-89-9         gamma-BHC (Lindane)         0.050         U         0.00010         0.050				<del> </del>	
7421-93-4         Endrin aldehyde         0.100         U         0.00010         0.100           53494-70-5         Endrin ketone         0.100         U         0.00010         0.100           76-44-8         Heptachlor         0.050         U         0.00010         0.050           1024-57-3         Heptachlor epoxide         0.050         U         0.00010         0.050           72-43-5         Methoxychlor         0.500         U         0.00010         0.500           8001-35-2         Toxaphene         5.00         U         0.00010         5.00           319-84-6         alpha-BHC         0.050         U         0.00010         0.050           5103-71-9         alpha-Chlordane         0.050         U         0.00010         0.050           319-85-7         beta-BHC         0.050         U         0.00010         0.050           319-86-8         delta-BHC         0.050         U         0.00010         0.050           58-89-9         gamma-BHC (Lindane)         0.050         U         0.00010         0.050		<del></del>	U	<del> </del>	
53494-70-5         Endrin ketone         0.100         U         0.00010         0.100           76-44-8         Heptachlor         0.050         U         0.00010         0.050           1024-57-3         Heptachlor epoxide         0.050         U         0.00010         0.050           72-43-5         Methoxychlor         0.500         U         0.00010         0.500           8001-35-2         Toxaphene         5.00         U         0.00010         5.00           319-84-6         alpha-BHC         0.050         U         0.00010         0.050           5103-71-9         alpha-Chlordane         0.050         U         0.00010         0.050           319-85-7         beta-BHC         0.050         U         0.00010         0.050           319-86-8         delta-BHC         0.050         U         0.00010         0.050           58-89-9         gamma-BHC (Lindane)         0.050         U         0.00010         0.050			Ū		
76-44-8         Heptachlor         0.050         U         0.00010         0.050           1024-57-3         Heptachlor epoxide         0.050         U         0.00010         0.050           72-43-5         Methoxychlor         0.500         U         0.00010         0.500           8001-35-2         Toxaphene         5.00         U         0.00010         5.00           319-84-6         alpha-BHC         0.050         U         0.00010         0.050           5103-71-9         alpha-Chlordane         0.050         U         0.00010         0.050           319-85-7         beta-BHC         0.050         U         0.00010         0.050           319-86-8         delta-BHC         0.050         U         0.00010         0.050           58-89-9         gamma-BHC (Lindane)         0.050         U         0.00010         0.050	L		U		
1024-57-3         Heptachlor epoxide         0.050         U         0.00010         0.050           72-43-5         Methoxychlor         0.500         U         0.00010         0.500           8001-35-2         Toxaphene         5.00         U         0.00010         5.00           319-84-6         alpha-BHC         0.050         U         0.00010         0.050           5103-71-9         alpha-Chlordane         0.050         U         0.00010         0.050           319-85-7         beta-BHC         0.050         U         0.00010         0.050           319-86-8         delta-BHC         0.050         U         0.00010         0.050           58-89-9         gamma-BHC (Lindane)         0.050         U         0.00010         0.050			U		
72-43-5         Methoxychlor         0.500         U         0.00010         0.500           8001-35-2         Toxaphene         5.00         U         0.00010         5.00           319-84-6         alpha-BHC         0.050         U         0.00010         0.050           5103-71-9         alpha-Chlordane         0.050         U         0.00010         0.050           319-85-7         beta-BHC         0.050         U         0.00010         0.050           319-86-8         delta-BHC         0.050         U         0.00010         0.050           58-89-9         gamma-BHC (Lindane)         0.050         U         0.00010         0.050	L.,			<u> </u>	
8001-35-2         Toxaphene         5.00         U         0.00010         5.00           319-84-6         alpha-BHC         0.050         U         0.00010         0.050           5103-71-9         alpha-Chlordane         0.050         U         0.00010         0.050           319-85-7         beta-BHC         0.050         U         0.00010         0.050           319-86-8         delta-BHC         0.050         U         0.00010         0.050           58-89-9         gamma-BHC (Lindane)         0.050         U         0.00010         0.050	<u></u>				
319-84-6         alpha-BHC         0.050         U         0.00010         0.050           5103-71-9         alpha-Chlordane         0.050         U         0.00010         0.050           319-85-7         beta-BHC         0.050         U         0.00010         0.050           319-86-8         delta-BHC         0.050         U         0.00010         0.050           58-89-9         gamma-BHC (Lindane)         0.050         U         0.00010         0.050	L	<del></del>			
5103-71-9         alpha-Chlordane         0.050         U         0.00010         0.050           319-85-7         beta-BHC         0.050         U         0.00010         0.050           319-86-8         delta-BHC         0.050         U         0.00010         0.050           58-89-9         gamma-BHC (Lindane)         0.050         U         0.00010         0.050		<u> </u>			
319-85-7         beta-BHC         0.050         U         0.00010         0.050           319-86-8         delta-BHC         0.050         U         0.00010         0.050           58-89-9         gamma-BHC (Lindane)         0.050         U         0.00010         0.050	l				
319-86-8         delta-BHC         0.050         U         0.00010         0.050           58-89-9         gamma-BHC (Lindane)         0.050         U         0.00010         0.050					
58-89-9 gamma-BHC (Lindane) 0.050 U 0.00010 0.050		1			
		<u> </u>			

US EP4 - CLP

EPA SAMPLE NO.

INORGANIC	ANALYSIS	CATA	SHEET
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Lab Name:	GCAL		Contract		
Lab Code:	LA024	Case No	SAS No.:	SDG No.:	204031909
Matric (soil	/ water )	Water	Lab Sample ID: 2040	031 <b>90901</b>	
Level (low/	med)	<del></del>	Date Received: 03/1	9/04	
% Solids:		<del></del>		<del></del>	

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	С	Q	М
7440-36-0	Antimony	5.7	В		Р
7440-38-2	Arsenic	11.5			Р
7440-39-3	Barium	284			Р
7440-41-7	Beryllium	10	В		Р
7440-43-9	Cadmium	15	В	<del></del>	Р
7440-47-3	Chromium	28.2			Р
7440-50-8	Copper	45.7			P
7439-89-6	Iron	32700			Р
7439-92-1	Lead	19.5		•	Р
7439-97-6	Mercury	0.1	U		AV
7440-02-0	Nickel	32.1	В		Р
7782 <del>-49</del> -2	Selenium	4.4	U	N	P
7440-22-4	Silver	0.4	U		Р
7440-28-0	Thallium	4.1	В		Р
7440-66-6	Zinc	81.0			Р
57-12-5	Cyanide	0.5	U		AS

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Color Before:	LT. BROWN	Clarity Before.	CLEAR	Texture:	<u> </u>
Color After:	LT. BROWN	Clarity After:	CLEAR	Artifacts:	

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### EPA SAMPLE NO.

	1	NORGANIC ANALYSIS	S DATA SHEE	sko	GW58DUP1009
Lab Name: _G	CAL	Contr	ract:		<del> </del>
Lab Code: LA	024 Case No.:	SAS	No.:	SDG	No.: 204031909
Matrix: ( soil / wa	ter) Water	Lab Sar	nple ID: _2040	3190902	
Level: ( low / me	d)	Date Re	eceived: 03/19	/04	
% Solids:					
	Units (ug/L or mg/kg dry weight)				
CAS No.	Analyte	Concentration	С	Q	М
7440-36-0	Antimony	3.7	В		Р
440-38-2	Arsenic	15.1			Р
440-39-3	Barium	326	···-		Р
440-41-7	Beryllium	1.3	В		Р
440-43-9	Cadmium	1.9	<u> </u>		Р
440-47-3	Chromium	41.8		·	Р
440-50-8	Copper	55.9	<del></del>		Р
7439-89-6	lron	48400			Р
439-92-1	Lead	27.2			Р
7439-97-6	Mercury	0.1	U	· · · · · · · · · · · · · · · · · · ·	AV
7440-02-0	Nickel	46.4			Р
782-49-2	Selenium	4.4	U	N	PUS
440-22-4	Silver	0.4	U		Р
	Thallium	2.6	U		Р
		125			PI
7440-28-0 7440-66-6 57-12-5	Zinc	0.5	U		AS

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Color Before:	LT. BROWN	Clarity Before:	CLEAR	Texture:	
Color After:	LT. BROWN	Clarity After:	CLEAR	Artifacts:	
Comments:					

EPA SAMPLE NO.

INORGANIC	ANALYS S	DATA	SHEET
		_	

SKGW631009
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				1	SKGMO	51009	1 '
Lab Name:	GCAL		Contract:	L			
Lab Code:	LA024	Case No.:	SAS No.		SDG No.:	204031909	
Metric (soil	/water)	Water	Lab Sample ID	20403190903	·	<u>.</u>	
Levet (low	/ med )	· <u> </u>	Date Received	C3/19/04			
% Solids:		<del></del>					

ug/L Concentration Units (ug/L or mg/kg dry weight):

CAS No.	Analyte Analyte	Concentration	С	Q	М
7440-36-0	Antimony	57	В		Р
7440-38-2	Arsenic	17.1			Р
7440-39-3	Barium	186	В		Р
7440-41-7	Beryllium	21	Б		P
7440-43-9	Cadmium	2.5	В		Р
7440-47-3	Chromium	38.2			P
7440-50-8	Copper	692			Р
7439-89-6	Iron	63200			Р
7439-92-1	Lead	41.0			Р
7439-97-6	Mercury	0.1	U		AV
7440-02-0	Nickel	58.1			Р
7782-49-2	Selenium	4.4	t t	N	Р
7440-22-4	Silver	0.4	Ų		Р
7440-28-0	Thallium	8.5	В		Р
7440-66-6	Zinc	176			P
57-12-5	Cyanide	0.5	U		AS

Color Before:	LT. BROWN	Clarity Before	CLEAR	Texture:	
Color After:	LT. BROWN	Clarity After	CLEAR	Artifacts:	

### EPA SAMPLE NO.

		INORGANIC ANALYSIS DATA SHEET			SKGW611009		
Lab Name: G	CAL	AL Contract:				·	
Lab Code: LA	024 Case No.:	SAS	No.:	\$D	G No.: 20403	31909	
Matrix: ( soil / wa Level: ( low / me % Solids:	d) Water		mple ID: 204 eceived: 03/1	03190904			
	Inits (ug/L or mg/kg dry weight)  Analyte	ug/L	С	Q	М	ļ	
7440-36-0	Antimony	4.8	В	<del></del>	P		
7440-38-2	Arsenic	2.9	U				
7440-39-3	Barium	44.1	В	<del></del>	P		
7440-41-7	Beryllium	0.2	В	<del> </del>	P		
7440-43-9	Cadmium	0.3	В	<del></del>	P		
7440-47-3	Chromium	1.9	В		Р		
7440-50-8	Copper	22.2	В		P		
7439-89-6	Iron	2430		<del> </del>	P		
7439-92-1	Lead	22.1		T	Р		
7439-97-6	Mercury	0.1	U		AV		
7440-02-0	Nickel	4.3	В		Р		
7782-49-2	Selenium	4.4	U	N	Р	びひ	
7440-22-4	Silver	0.4	U		P		
	Thallium	2.6	U		Р	_	
7440-28-0		7,3	В		Р	3	
7440-28-0 7440-66-6	Zinc	7.0					



Color Before:	COLORLESS:		Clarity Before:	CLEAR	Texture:	
Color After:	COLORL	;	Clarity After:	CLEAR	Artifacts:	

EPA SAMPLE NO.

INORGANIC	ANALYS'S	DATA	SHEET
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Lab Name: GCAL	Contract:	<u>_</u>	<del></del>	
Lab Code: LA024 Case No :	SAS No:		SDG No.:	204031909
Metric ( soil / water ) Water	Lab Sample ID	20403190907		<u>.</u>
Level: (low / med )	Date Received	03/19/04		
% Solide:				
Concentration Units (ug/L or mg/kg dry weight) : ug/L				

CAS No.	Analyte	Concentration	С	Q	M
7440-36-0	Antimony	5.5	В		P
7440-38-2	Arsenic	3.7	В		Р
7440-39-3	8arium	45.4	В		Р
7440-41-7	Beryllium	0.2	В		Р
7440-43-9	Cadmium	03	В		Р
7440-47-3	Chromium	1.6	В		P
7440-50-8	Copper	18.6	В		Р
7439-89-6	iron	2490			Р
7 <b>439-9</b> 2-1	Leed	22.5			Р
7439-97-6	Mercury	0.1	Ú		AV
7440-02-0	Nickel	37	В		P
7782-49-2	Selenium	4.4	Ü	N	Р
7440-22-4	Silver	0.4	U		Р
7440-28-0	Thelium	2.6	Ü		Р
7440-66-6	Zinc	7.0	В		Р
57-12-5	Cyanide	0.8	В		AS

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Color Before:	COLORLESS	Clarity Before	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After:	CLEAR	Artifacts:	

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### EPA SAMPLE NO.

INORGANIC	ANALYSIS	DATA	SHEET
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SKG	NFB1	009

Lab Name: GCAL  Lab Code: LA024 Case No.:	Contract:		SDG No.:	204031909
Matrix: ( soil / water ) Water	Lab Sample ID:	20403190908		
Level: ( low / med )	Date Received:	03/19/04		
% Solids:	•			
Concentration Units (ug/L or mg/kg dry weight): ug/L				

CAS No.	Analyte	Concentration	С	Q	М
7440-36-0	Antimony	3.7	Ü		P
7440-38-2	Arsenic	2.9	U		P
7440-39-3	Barium	0.4	В		P
7440-41-7	Beryllium	0.1	U		Р
7440-43-9	Cadmium	0.2	U		Р
7440-47-3	Chromium	0.8	U		P
7440-50-8	Copper	1.2	U		Р
7439-89-6	Iron	14.1	U	······································	Р
7439-92-1	Lead	1.5	U		Р
7439-97-6	Mercury	0.1	U		AV
7440-02-0	Nickel	0.9	8		Р
7782-49-2	Selenium	4.4	U	N	Р
7440-22-4	Silver	0.4	U		Р
7440-28-0	Thallium	4.6	В		Р
7440-66-6	Zinc	3.2	В		Р
57-12-5	Cyanide	0.5	U		AS

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Color Before:	COLORLESS	Clarity Before:	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After:	CLEAR	Artifacts:	
Comments:					

### US EP4 - CLP

EPA SAMPLE NO.

INCRGANIC	ANALYS S	CATA	SHEET
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Lab Name: GCAL	Contract			
Lab Code: LA024 Case No.:	SAS No.:		SDG No.:	204031909
Matric (soil / water) Water	Lab Sample ID:	20403190910		
Level: (low / med )	Date Received:	03/19/04		
% Solide:				

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	С	Q	M	7
7440-36-0	Antimony	3.7	U		Р	7
7440-38-2	Arsenic	3.1	В		Р	1
7440-39-3	Barium	156	В		P	7
7440-41-7	Beryllium	0.1	U		Р	7
7440-43-9	Cadmium	0.2	υ		P	٦
7440-47-3	Chromium	1.5	В		P	7
7440-50-8	Copper	29	В		P	7
7439-89-6	Iron	209			Р	7
7439-92-1	Leed	1.5	Ü		Р	
7439-97-6	Mercury	0.1	Ü		AV	-
7440-02-0	Nickel	26	В		Р	
7782-49-2	Selenium	4.4	U	N	Р	−ีบ
7440-22-4	Silver	0.4	Ü		Р	_
7440-28-0	Thellium	2.6	U		Р	
7440-66-6	Zinc	06	U	<del></del>	P	_

Color Before:	COLORLESS	Clarity Before:	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After	CLEAR	Artifacts:	

### EPA SAMPLE NO.

INORGANIC	ANALYSIS	DATA	SHEET
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SKCWS8DI	IP1009/DISS)	

	"•		5 571171 517121		SKGW58DUP	1009(DISS)
Lab Name: GC	AL	Cont	ract:		<del></del>	
Lab Code: LA0	24 Case No.:	SAS	No.:	SI	DG No.: 204	031909
Matrix: ( soil / water	er) Water	Lab Sa	mple ID: 20403	190911		
Level: ( low / med	)	Date R	eceived: 03/19/	/04		
% Solids:						
Concentration Ur	nits (ug/L or mg/kg dry weight) :	ug/L				
CAS No.	Analyte	Concentration	С	Q	М	7
7440-36-0	Antimony	3.7	U		P	7
7440-38-2	Arsenic	2.9	U		P	7
7440-39-3	Barium	164	В		P	7
7440-41-7	Beryllium	0.1	U		Р	7
7440-43-9	Cadmium	0.2	U		P	7
7440-47-3	Chromium	1.3	В		Р	]
7440-50-8	Copper	1.2	U		P	]
7439-89-6	Iron	201			Р	7
7439-92-1	Lead	1.5	U		Р	
7439-97-6	Mercury	0.1	Ú		AV	7
7440-02-0	Nickel	2.0	В		Р	7 _
7782-49-2	Selenium	4.4	U	N	Р	Tu3
7440-22-4	Silver	0.4	U		Р	7
7440-28-0	Thallium	2.6	Ú		Р	7
7440-66-6	Zinc	0.6	υ		P	7
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Clarity After: Color After: COLORLESS CLEAR Artifacts: Comments:

CLEAR

Clarity Before:

COLORLESS

Color Before:

Texture:

EPA SAMPLE NO.

INORGANIC	ANALYS :	S DATA	SHEET
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SKGW631009(DISS)

Lab Name:	GCAL		Contract:	l			
Lab Code:	LA024	Case No.	SAS No.:		SDG No.:	204031909	
Matric ( soil	/ water )	Water	Lab Sample ID:	20403190912			
Level: (low/	med )		Date Received:	03/19/04			
% Solids:				<del></del>			

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	С	Q	M
7440-36-0	Antimony	3.8	В		Р
7440-38-2	Arsenic	29	υ		P
7440-39-3	Barium	20.1	В		Р
7440-41-7	Beryllium	0.2	В		Р
7440-43-9	Cadmium	0.2	Ü		P
7440-47-3	Chromium	1.8	В		P
7440-50-8	Copper	20	В		P
7439-89-6	lron	21 4	3		Р
7439-92-1	Lead	1.5	U		P
7439-97-6	Mercury	0.1	Ü		AV
7440-02-0	Nickel	32	В		Р
7782-49-2	Selenium	44	U	N	P
7440-22-4	Silver	04	U		Р
7440-28-0	Thalfurn	46	В		Р
7440-66-6	Zinc	0.6	U		Р

Calar Balana	COLORLESS	Clarity Before	CLEAR	Texture:	
		·			
Color Alter:	COLORLESS	Clarity After	CLEAR	Artifacts:	

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#### EPA SAMPLE NO.

INORGANIC	ANIAL VOIC	DATA	CHEET
INURGANIC	ANALYSIS	UAIA	SHEEL

SYCV	1611	000/	DIGG/

Lab Name: G	CAL	Con	tract:				
Lab Code: LA	024 Case No.:	SAS	No.:		SDG No.:	20403	1909
Matrix: ( soil / wa	ater) Water	Lab Sa	ample ID:	20403190913			
Level: ( low / me	d)	Date F	Received:	03/19/04			
% Solids:							
Concentration L	Units (ug/L or mg/kg dry weigh	nt): ug/L					
CAS No.	Analyte	Concentration	С		2	М	
7440-36-0	Antimony	4.5	В			Р	
7440-38-2	Arsenic	2,9	U			Р	
7440-39-3	Barium	39.4	В			Р	
7440-41-7	Beryllium	0.1	В			Р	
7440-43-9	Cadmium	0.3	В			Р	
7440-47-3	Chromium	1.1	В			Р	
7440-50-8	Copper	8.0	В			Р	
7439-89-6	Iron	187				Р	
7439-92-1	Lead	1.5	U			Р	
7439-97-6	Mercury	0.1	U			AV	
7440-02-0	Nickel	4.2	В			Р	
7782.40-2	Selenium	44	1 11		j i	Р	11K

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0.4

2.6

7440-22-4

7440-28-0

7440-66-6

Silver

Zinc

Thallium

\$128/09

Р

Color Before:	COLORLESS	Clarity Before:	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After:	CLEAR	Artifacts:	
Comments:					

EPA SAMPLE NO.

### INORGANIC ANALYSIS DATA SHEET

SKGW61DUP1009 (DISS)

Lab Name:	GCAL		Contract:	· · · · · · · · · · · · · · · · · · ·			
Lab Code:	LA024	Case No :	SAS *10.:		SDG No.:	204031909	
Matric ( soil	/ water )	Water	Lab Sample ID:	20403190915			
Level ( low /	med)		Date Received	03/19/04			
% Solide:	···	<del></del>					

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	С	Q	M
7440-36-0	Antimony	3.7	Ü	·	Р
7440-38-2	Arsenic	2.9	U		P
7440-39-3	Barium	38.9	В		Р
7440-41-7	Beryllium	0.1	В		Р
7440-43-9	Cadmium	0.2	U		Р
7440-47-3	Chromium	1.3	В		Р
7440-50-8	Copper	5.2	В		Р
7439-89-6	Iron	195			Ρ
743 <del>9-9</del> 2-1	Lead	15	U		Р
7439-97-6	Mercury	0.1	U		AV
7440-02-0	Nickel	3.6	В		Р
7782-49-2	Selenium	4.4	U	N	Р
7440-22-4	Silver	0.4	U		Р
7440-28-0	Thellium	5.6	В		Р
7440-86-6	Zinc	0.6	U		Р

Color Before:	COLORLESS	Clarity Before	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After:	CLEAR	Artifacts:	

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### EPA SAMPLE NO.

INORGANIC ANA	LYSIS	DATA	SHEE
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SKGWFB1009 (DISS)

Lab Name: GCAL	Contract:	-	
Lab Code: LA024 Case No.:	SAS No.:	SDG No.:	204031909
Matrix: ( soil / water ) Water	Lab Sample ID: 20403190916		
Level: ( low / med )	Date Received: 03/19/04		
% Solids:			
Concentration Units (ug/L or mg/kg dry weight): Ug/L			

CAS No.	Analyte	Concentration	С	Q	М
7440-36-0	Antimony	3.7	В		P
7440-38-2	Arsenic	2.9	U		Р
7440-39-3	Barium	0.3	υ		P
7440-41-7	Beryllium	0.1	U		Р
7440-43-9	Cadmium	0.2	U	U	
7440-47-3	Chromium	0.8	υ	U	
7440-50-3	Copper	1.2	U	J	
7439-89-6	Iron	14.1	U		P
7439-92-1	Lead	1.5	U		P
7439-97-6	Mercury	0.1	Ü		AV
7440-02-0	Nickel	0.7	U		Р
7782-49-2	Selenium	4.4	υ	א ט	
7440-22-4	Silver	0.4	U		Р
7440-28-0	Thallium	7.5	В	<del> </del>	P
7440-66-6	Zinc	0.6	U		P

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Color Before:	COLORLESS	Clarity Before:	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After:	CLEAR	Artifacts:	
Comments:					

EPA SAMPLE NO.

INORGANIC ANAL	YS S	DATA	SHEET
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	<b>}</b>	1
Lab Name: GCAL	Contract:	
Lab Code: LA024 Case No:	SAS No.:	SDG No.: 204031909
Matric (soil / water) Water	Lab Sample ID: 20403220801	<del></del>
Level: ( low / med )	Date Received: 03/19/04	
% Solids:		

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	С	Q	М
7440-36-0	Antimony	5.5	В		P
7440-38-2	Arsenic	124			P
7440-39-3	Barium	440			Р
7440-41-7	Beryfium	1,1	В		Р
7440-43-0	Cadmium	1.0	В		P
7440-47-3	Chromium	16 9			P
7440-50-8	Copper	39 3			P
7439-89-6	Iron	25300			P
7430-92-1	Leed	23.9			P
7439-97-6	Mercury	0.1	U		AV
7440-02-0	Nickel	23.4	3		P
7762-49-2	Selenium	4.4	Ü	N	P
7440-22-4	Silver	0.4	U		P
7440-28-0	Thelium	2.6	U		Р
7440-66-6	Zinc	72.9			P
57-12-5	Cyanide	1.0	8		AS

5/128/24

Calor Before:	LT.YELLOW	Clarity Before	CLEAR	Texture:	
Color After:	LT.YELLOW	Clarity After	CLEAR	Artifacts:	

### EPA SAMPLE NO.

### INORGANIC ANALYSIS DATA SHEET

SKGW07R1009
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				J. S. C.	344071(1003	•
Lab Name: _(	GCAL	C	ontract:		- <del></del>	
Lab Code: L	A024 Case No.:	S/	AS No.:	SDG	No.: 2040	31909
Matrix: ( soil / w	vater) Water	Lab	Sample ID: 20403	220802		
Level: ( low / m	ed )	Date	Received: 03/19/	n4		
% Solids:						
Concentration	Units (ug/L or mg/kg dry weight)	: ug/L				
CAS No.	Analyte	Concentration	С	Q	M	]
7440-36-0	Antimony	6.6	В		Р	1
7440-38-2	Arsenic	6.9	В		P	1
7440-39-3	Barium	484			P	1
7440-41-7	Beryllium	0.8	В	<del></del>	P	1
7440-43-9	Cadmium	0.9	В	<del></del>	P	1
7440-47-3	Chromium	12.9	1		P	1
7440-50-8	Copper	35.5		<del></del>	Р	1
7439-89-6	Iron	20200		· · · · · · · · · · · · · · · · · · ·	P	1
7439-92-1	Lead	9.2	<del>                                     </del>		P	
7439-97-6	Mercury	0.1	U	· · · · · · · · · · · · · · · · · · ·	AV	1
7440-02-0	Nickel	17.8	В		Р	
7782-49-2	Selenium	4.4	<del> </del>	N	P	u3
7440-22-4	Silver	0.4	<del>                                     </del>	<del></del>	P	
7440-28-0	Thallium	2.6	1 - 0 - 1		T P	i
7440-66-6	Zinc	51.2	<del> </del>	· · · · · · · · · · · · · · · · · · ·	P	1
57-12-5	Cyanide	1.5	В	,	AS	1
						graph
Color Before:	LT.YELLOW	Clarity Before:	CLEAR	Textur	e:	
Color After:	LT.YELLOW	Clarity After:	CLEAR	Artifac	ts:	
Comments:						

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INORGANIC AN	AL YS S	DATA	SHEET
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SKGW591009
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				i	SKGW591009		
Lab Name:	GCAL		Contract				
Lab Code:	LA024	Case No.	SAS No .		SDG No.:	204031909	
Matric (soil	/water)	Water	Lab Sample ID	20403220803	····-		
Levet (low	/ med )	<del></del>	Date Received:	03/19/04			
% Solids:							

ug/L Concentration Units (ug/L or mg/kg dry weight):

CAS No.	Analyte	Concentration	С	Q	M
7440-36-0	Antimony	4.7	В		Р
7440-38-2	Arsenic	29	Ü		Р
7440-39-3	8arium	55.0	В		Р
7440-41-7	Beryllium	0.2	В		P
7440-43-9	Cadmium	0.2	U		Р
7440-47-3	Chromium	5.5	В		Р
7440-50-8	Copper	10.1	В		Р
7439-89-6	Iron	3020			Р
7439-92-1	Lead	1.5	U		Р
7439-97-6	Mercury	0.1	L.	-	AV
7440-02-0	Nickel	67	В		P
7782-49-2	Selenium	44	L	N	P
7440-22-4	Silver	34	U		Р
7440-28-0	Thallium	26	į		P
7440-66-6	Zinc	7.9	B		Р
57-12-5	Cyanide	1.0	B	., .	AS

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Calar Before:	COLORLESS	Clarity Before	CLEAR	Texture:	
Color Alter:	COLORLESS	Clarity After:	CLEAR	Artifacts:	

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#### EPA SAMPLE NO.

INORGANIC	ANALYSIS	DATA	SHEET
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	~			SKGW6	01009
Lab Name:	GCAL	С	ontract:	<u>.</u>	
Lab Code: L	A024 Case No.:	S	AS No.:	SDG No.:	204031909
Matrix: ( soil / v	vater) Water	Lab	Sample ID: 20403220804		
Level: ( low / m	ed )	Date	e Received: 03/19/04		
% Solids:			***************************************		
Concentration	Units (ug/L or mg/kg dry weight)	; ug/L			
CAS No.	Analyte	Concentration	C	Q T	M
7440-36-0	Antimony	9.7	В		P
7440-38-2	Arsenic	17.0			Р
7440-39-3	Barium	129	В		Р
7440-41-7	Beryllium	2.5	В		Р
7440-43-9	Cadmium	2.8	В		Р
7440-47-3	Chromium	59.6			Р
7440-50-8	Copper	54.5			Р
7439-89-6	iron	74200			Р
7439-92-1	Lead	40.4			Р
7439-97-6	Mercury	0.1	В		AV
7440-02-0	Nickel	67.3			P
7782-49-2	Selenium	4.4		N	P us
7440-22-4	Silver	0.4	U		P
7440-28-0	Thallium	11.0			P 5
7440-66-6	Zinc	180			<u> </u>
			ing o		512834
Color Before:	DK. BROWN	Clarity Before:	CLEAR	Texture:	
			<del></del>		
Color After:	DK. BROWN	Clarity After:	CLEAR	Artifacts:	

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EPA SAMPLE NO.

INORGANIC	ANALYS S	DATA SHEET
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				0.1011		1
Lab Name:	GCAL		Contract:	<u> </u>		
Lab Code:	LA024	Case No.:	SAS No.:	SDG No.:	204031909	
Matric ( soi	/water)	Water	Lab Sample ID: 20403220805			
Level: (low/	med)	<del></del>	Date Received 03/19/04	_		
% Solids:		<b></b>		_		

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	С	Q	M
7440-36-0	Antimony	6.1	В	<del></del>	P
7440-38-2	Arsenic	8.3	В		P
7440-39-3	Barium	361			P
7440-41-7	Bery#kum	1.1	В		Р
7440-43-9	Cadmium	1.6	В		P
7440-47-3	Chromium	29 6			Р
7440-50-8	Copper	42.7			P
7439-89-8	Iron	35000			P
7439-92-1	Leed	39.5			Р
7439-97-6	Mercury	0.1	υ		AV
7440-02-0	Nickel	35.4	8		Р
7782-49-2	Selenium	4.4	U	N	Р
7440-22-4	Silver	04	IJ		P
7440-28-0	Thellum	6.9	3		Р
7440-66-6	Zinc	101			Р
57-12-5	Cyenide	1.0	В		AS

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Calar Before:	LT. BROWN	Clarity Before	CLEAR	Texture:	
Color After:	LT. BROWN	Clarity After:	CLEAR	Artifacts:	

#### EPA SAMPLE NO.

INORGANIC	ANALYSIS	DATA	SHEET
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		MONOANIO ANALIO	IO DATA (	JIILE 1	SKGW	641009	
Lab Name: G		and the second s	tract:		·		
Lab Code: LA	024 Case No.:	SAS	No.:		SDG No.:	2040	31909
Matrix: ( soil / wa		Lab Sa	ample ID:	20403220806			
Level: ( low / med	d)	Date F	Received:	03/19/04			
% Solids:				A			
Concentration L	Jnits (ug/L or mg/kg dry weig	ht): ug/L					
CAS No.	Analyte	Concentration	C		a T	М	1
7440-36-0	Antimony	4.9	В		<del></del>	P	1
7440-38-2	Arsenic	2.9	U			P	1
7440-39-3	Barium	37.1	В			Р	1
7440-41-7	Beryllium	0.3	В			Р	]
7440-43-9	Cadmium	0.2	U			Р	]
7440-47-3	Chromium	7.0	В			Р	]
7440-50-8	Copper	11.3	В			Р	]
7439-89-6	Iron	7520	<u> </u>			Р	1
7439-92-1	Lead	1,5	U			Р	1
7439-97-6	Mercury	0.1	U			AV	1
7440-02-0	Nickel	16.4	В			Р	1.4
7782-49-2	Selenium	4.4	U		N	Р	us
7440-22-4	Silver	0.4	U			Р	l .
7440-28-0	Thallium	2.6	U			Р	
7440-66-6	Zinc	13.6	В			P	3
57-12-5	Cyanide	1.3	В	<u>-</u>		AS	ì
							y not los
Color Before: Color After: Comments:	COLORLESS		CLEAR CLEAR		Texture: Artifacts:		

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EPA SAMPLE NO.

INCRGANIC ANA	LYS:S	CATA	SHEET
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SKGW06R1009 (DISS)

Lab Name: GCAL	Contract:		
Lab Code: LA024 Case No	SAS No:	_ SDG No.:	204031909
Matric (soil / water ) Water	Lab Sample ID: 20403220808		
Levet (low / med )	Date Received: 03/19/04		
% Solids:			

Concentration Units (ug/L or mg/kg ary weight):

ug/L

CAS No.	Analyte	Concentration	С	Q	M	
7440-36-0	Antimony	37	J		P	٦
7440-38-2	Arsenic	29	Ĵ		P	
7440-39-3	Barium	266			P	٦
7440-41-7	Beryllium	01	Ù		Р	
7440-43-9	Cadmium	C 2	Ú		P	_
7440-47-3	Chromium	1.2	8		P	_
7440-50-8	Copper	12	Ĺ		Р	_
7439-89-6	tron	22.0	В		P	_
7430-02-1	Leed	15	Ų		Р	_
7439-97-6	Mercury	C 1	U	<del></del>	AV	
7440-02-0	Nickel	1.7	В		P	
7782-49-2	Selenium	44	U	N	P	
7440-22-4	Silver	0.4	Ľ	<del></del>	P	
7440-28-0	Thelium	2.6	U	<del></del>	P	
7440-66-6	Zinc	C 6		<del></del>	P	7

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Color Before:	COLORLESS	Clarity Before	CLEAR	Tedure:	
Color After:	COLORLESS	Clarity After.	CLEAR	Artifacts:	

Community:

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### EPA SAMPLE NO.

INORGANIC /	ANALYSIS	DATA	SHEET
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SKGW07R1009 (DISS)

Lab Name: GCAL	Contract:			
Lab Code: LA024 Case No.:	SAS No.:	<del></del>	SDG No.:	204031909
Matrix: ( soil / water ) Water	Lab Sample ID:	20403220809		
Level: ( low / med )	Date Received:	03/19/04		
% Solids:	•			
Concentration Units (ug/L or mg/kg dry weight) : ug/L				

CAS No.	Analyte	Concentration	С	C Q		7
7440-36-0	Antimony	3.7	U		Р	1
7440-38-2	Arsenic	2.9	υ		P	1
7440-39-3	Barium	113	В		Р	1
7440-41-7	Beryllium	0.1	В		Р	1
7440-43-9	Cadmium	0.2	U		Р	1
7440-47-3	Chromium	1.1	В		Р	7
7440-50-8	Copper	1.2	υ		Р	7
7439-89-6	Iron	32.9	В		ρ	7
7439-92-1	Lead	1.5	U		Р	7
7439-97-6	Mercury	0.1	U		ĀV	7
7440-02-0	Nickel	2.2	В		P	1 .
7782-49-2	Selenium	4.4	υ	N	Р	1W
7440-22-4	Silver	0.4	U		P	7
7440-28-0	Thallium	2.6	U		Р	7
7440-66-6	Zinc	0.6	U		Р	1

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Color Before:	COLORLESS	Clarity Before:	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After:	CLEAR	Artifacts:	
Comments:					

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EPA SAMPLE NO.

INORGANIC	ANAL	48. <b>S</b>	CATA	S-EET
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SKGW591009 (DISS)

					GAGII S	91009 (D100)	
Lab Name:	GCAL		Contract				
Lab Code:	LA024	Case No.:	 SAS No.:		SDG No.:	204031909	
Matric ( soil	/water)	Water	Lab Sample ID:	20403220810			
Level ( low /	med)		Date Received:	03/19/04			
% Solids:							

Concentration Units (ug/L or mg/kg dry weight): Ug/L

CAS No.	Analyte	Concentration	С	Q	M
7440-36-0	Antimony	3.7	U	<del></del>	P
7440-38-2	Arsenic	2.9	Ü		Р
7440-39-3	Barium	21.8	E		Р
7440-41-7	Beryffum	0.1	В		Р
7440-43-9	Cadmium	0.2	L		Р
7440-47-3	Chromium	1.8	В		Р
7440-50-8	Copper	2.1	В		Р
7439-89-6	Iron	28 8	В		Р
7439-92-1	Leed	15	i		Р
7439-97-6	Mercury	0.1	پ		AV
7440-02-0	Nickel	2.6	В		Р
7782-49-2	Selenium	4.4	Ų	N	Р
7440-22-4	Silver	0.4	Ĺ	•	Р
7440-28-0	Thelium	3.1	В		P
7440-66-6	Zinc	3.1	В		Р

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Color Before:	COLORLESS	Clarity Before	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After	CLEAR	Artifacts:	

#### EPA SAMPLE NO.

INORGANIC	ANALYSIS	DATA	SHEET
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SKGW6010	09 (DISS)
0110110010	33 (0.00)

Lab Name: GCAL	Contract:	<u> </u>	J
Lab Code: LA024 Case No.:	SAS No.:	SDG No.:	204031909
Matrix: (soil / water) Water	Lab Sample ID: 2040	03220811	
Level: ( low / med )	Date Received: 03/1	9/04	
% Solids:			
Concentration Units (ug/L or mg/kg dry weight) : ug/L			

CAS No.	Analyte	Concentration	С	Q	M	1
7440-36-0	Antimony	5.1	В		Р	1
7440-38-2	Arsenic	2.9	Ū		Р	1
7440-39-3	Barium	27.1	В		Р	1
7440-41-7	Beryllium	0.2	В		Р	7
7440-43-9	Cadmium	0.2	U		Р	1
7440-47-3	Chromium	2.6	В		Р	7
7440-50-8	Copper	4.0	В		Р	1
7439-89-6	Iron	14.1	Ú		P	1
7439-92-1	Lead	1.5	U		Р	1
7439-97-6	Mercury	0.1	U		AV	1
7440-02-0	Nickel	2.4	В		Р	7
7782-49-2	Selenium	4.4	U	N	P	Tus
7440-22-4	Silver	0.4	U		P	1
7440-28-0	Thallium	2.6	U		Р	1
7440-6€-6	Zinc	0.6	U		Р	1

Color Before:	COLORLESS	Clarity Before:	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After:	CLEAR	Artifacts:	
Comments:					

EPA SAMPLE NO.

SKGW62A1009 (DISS)

Lab Name:	GCAL		Contract:				
Lab Code:	LA024	Case No.:	SAS No:		SDG No.:	204031909	
Matric ( soil	/water)	Water	Lab Sample ID:	20403220812			_
Level: (low /	med) _		Date Received:	03/19/04			
% Solida:							

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	С	Q	М	7
7440-36-0	Antimony	37	U		Р	1
7440-38-2	Arsenic	29	U		Р	7
7440-39-3	Barium	111	B		P	
7440-41-7	Beryllium	0.1	U		Р	٦
7440-43-9	Cadmium	0.2	L'		P	7
7440-47-3	Chromium	21	В	<del></del>	Р	7
7440-50-8	Copper	1.2	U		Р	7
7439-89-6	Iron	14.1	U		P	
7439-92-1	Leed	1.5	U		Р	7
7439-97-6	Mercury	0.1	U	-	AV	7
7440-02-0	Nickel	1.8	В		P	
7782-49-2	Selenium	4.4	U	N	Р	⊣ u
7440-22-4	Silver	0.4	Ų		. Р	7
7440-28-0	Thelium	2.6	U		ρ	Ę
7440-66-6	Zinc	0.6	U		Р	_

Color Before:	COLORLESS	Clarity Before:	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After	CLEAR	Artifacts:	

### INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SKGW64	11 <b>009</b> (DISS)	

Lab Name: GCAL	Contract:	
Lab Code: LA024 Case No.:	SAS No.: SDG No.:	
Matrix: (soil / water) Water	Lab Sample ID: 20403220813	
Level: ( low / med )	Date Received: 03/19/04	
% Solids:		
Concentration Units (ug/L or mg/kg dry weight) : ug/L		

CAS No.	Analyte	Concentration	С	Q	M	7
7440-36-0	Antimony	3.7	Ü	<del></del>	P	1
7440-38-2	Arsenic	2.9	U		Р	1
7440-39-3	Barium	28.3	В		P	1
7440-41-7	Beryllium	0.1	В		P	1
7440-43-9	Cadmium	0.2	υ		Р	1
7440-47-3	Chromium	1.7	В		Р	1
7440-50-8	Copper	1.2	U		Р	1
7439-89-6	Iron	14.1	U		Р	1
7439-92-1	Lead	1.5	U		Р	1
7439-97-6	Mercury	0.1	U		AV	1
7440-02-0	Nickel	7.8	В		P	1
7782-49-2	Selenium	4.4	U	N	Р	Tu:
7440-22-4	Silver	0.4	U		Р	1
7440-28-0	Thallium	2.6	U		Р	1
7440-66-6	Zinc	0.6	U		Р	1

Color Before:	COLORLESS	Clarity Before:	CLEAR	Texture:	***************************************
Color After:	COLORLESS	Clarity After:	CLEAR	Artifacts:	
Comments:				•	

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Client Name

204031909

GSRI Avenue, Baton Rouge, Louisiana 70820-7402 Phone 225.769.4900 • Fax 225.767.5717 Workorder # Report to: Bill to: Lab use only: Analytical Requests & Method Ear The Tree **Custody Seal** used 🔲 yes no Address: Wilder . Ky 411 16 in tacl [] Box Contact: Contact: Temperature \*C 130 HUZ 526 Phone: Phone: 174 4172 2211 P.O. Number Project Name/Number Shinner / withit little 2004 C 4250 Sampled By: Lab (D) Matrix<sup>†</sup> Date Time (2400) Sample Description Preservatives \$14 m 114! ANSWCH (. W. F. 1009 1166 575 10 sect 25 1000 T. 51, 7 (Tal) own Tables KING WER INNS 147. Chickbillou ITAL) 1 11. 1.35 ish how to los your SIMIL TUN Plan in The day Ch GULLINSD 1001 MYD -1610 SK GW FB1609 17.6 SHTRICOG 146L 34. 144. Turn Around Time: 24-48 hrs. X Standard 3 days ☐ 1 week Other Relinquished by: (Signature) Received by: (Signature) Time: Note:

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Time: 3/19/04/

By submitting these samples, you agree to the terms and

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7979 GSRI Avenue, Baton Rouge, Louisiana 70820-7402 Phone 225.769.4900 • Fax 225.767.5717 Client Name

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By submitting these samples, you agree to the terms and conditions contained in our most recent schedule of conditions

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## DATA VALIDATION REPORT

**FOR** 

SKINNER LANDFILL SITE

**EARTH TECH: PROJECT NUMBER 54280** 

**LABORATORY REPORT NUMBER 204030804** 

PROJECT MANAGER: Ron Rolker

Date: May 6, 2004

**Data Validator: Mark Kromis** 

## APPENDIX C LIST OF ACRONYMS

BFB Bromofluorobenzene CC Continuing Calibration

CCV Continuing Calibration Verification
CCB Continuing Calibration Blanks
CLP Contract Laboratory Program
CRDL Contract Required Detection Limit
DFTPP Decafluorotriphenylphosphine

GC/MS Gas Chromatograph/Mass Spectrometer

IC Initial Calibration

ICB Initial Calibration Blank
IDL Instrument Detection Limit
ICP Inductively Coupled Plasma
ICS Interference Check Sample
ICV Initial Calibration Verification

ILM Inorganic Analysis Multi-Media Multi-Concentration

INDAM Individual A Mixture INDBM Individual B Mixture mg/L milligrams per liter

MS/MSD Matrix Spike/Matrix Spike Duplicate
OLC Organic Analysis Low Concentration

OLM Organic Analysis Multi-Media Multi-Concentration

%D Percent Difference

% RSD Percent Relative Standard Deviation

PB Preparation Blanks
QC Quality Control
RF Response Factor

RPD Relative Percent Difference
RRF Relative Response Factor
SDG Sample Delivery Group
SOW Statement of Work

µg/L micrograms per liter

US EPA United States Environmental Protection Agency

VOC Volatile Organic Compounds VTSR Validated Time of Sample Receipt

# DATA VALIDATION SUMMARY – SAMPLE DELIVERY GROUP 204030804 INORGANICS

Validation of the inorganics data, as prepared by Gulf Coast Analytical Laboratories (GCAL) for the samples collected from the Skinner Landfill site in March 2004, was conducted by Earth Tech using the National Functional Guidelines for Inorganic Data Review, (US EPA, February, 1994), as appropriate. The results were reported by GCAL under Sample Delivery Group (SDG) 204030804.

GCAL#	Sample Description
204030804-01	SKSWD031009
204030804-02	SKSWD03D1009
204030804-03	SKSWD03MS1009
204030804-05	SKSWD03DUP1009
204030804-06	SKSWDEB1009
204030804-08	SKSWD031009 (DISS)
204030804-09	SKSWD03D1009 (DISS)
204030804-10	SKSWD03MS1009 (DISS)
204030804-11	SKSWD03DUP1009 (DISS)
204030804-12	SKSWDEB1009 (DISS)

#### INTRODUCTION

Analyses of metals were performed according to Contract Laboratory Program (CLP)-Inorganic Analysis Multi-media Multi-concentration ILM04.1 Statement of Work (SOW). Results of the sample analyses are reported by the laboratory as either qualified or unqualified. Unqualified results mean that the reported values maybe used without reservation. Various qualifier codes are used by the laboratory to denote specific information regarding the analytical results.

The data validation process is intended to evaluate the data on a technical basis. The data package also was subjected to an internal laboratory quality review prior to submission to Earth Tech for data validation.

During the validation process, laboratory-qualified and unqualified data are verified against all available supporting documentation. Based on this evaluation, qualifier codes may be added, deleted or modified by the data user. Final results are therefore, either qualified or unqualified. Validator-qualified results are annotated with the following codes in accordance with the Functional Guidelines:

- U The constituent was analyzed for, but was not detected above the level of the associated analytical reporting limit. The associated value is either the sample quantitation limit or the sample detection limit.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Details of the inorganics data validation findings and conclusions are provided in the following sections of this report:

- 1. Holding Times
- 2. Calibration
  - A. Initial Calibration (IC)
  - B. Continuing Calibration (CC)
- 3. Blanks
- 4. Inductively Coupled Plasma (ICP) Interference Check Sample
- 5. Laboratory Control Sample (LCS)
- 6. Duplicate Analysis
- 7. Spike Sample Analysis
- 8. ICP Serial Dilution
- 9. System Performance
- 10. Documentation
- 11. Overall Assessment

#### 1. HOLDING TIMES

All samples for inorganics analyses were analyzed within the 180-day holding time for preserved aqueous samples. Mercury analyses were conducted within the 28-day holding time for aqueous samples undergoing CLP protocol. Cyanide analyses were conducted within the 14-day holding time. The cooler temperature upon receipt at the laboratory was within the recommended temperature of 4°C +/- 2°C.

#### 2. CALIBRATION

#### A. Initial Calibration

The percent recoveries for the Initial Calibration Verification (ICV) standard were within Quality Control (QC) limits for all constituents.

## B. Continuing Calibration

The percent recoveries for the Continuing Calibration Verification (CCV) standard were within QC limits for all constituents.

#### 3. BLANKS

The Initial Calibration Blank (ICB), Continuing Calibration Blanks (CCB) and Preparation Blanks (PB) were analyzed at the appropriate frequencies. No constituents were detected in the ICB, CCB, PB, Equipment blanks above the corresponding Contract Required Detection Limit (CRDL).

### 4. ICP INTERFERENCE CHECK SAMPLE

Results for the ICP analysis of the Interference Check Sample (ICS) solution AB were within 20% of the true value.

#### 5. LABORATORY CONTROL SAMPLES

Recoveries were within the control limit (80-120%) for all constituents.

#### 6. DUPLICATE ANALYSIS

The Relative Percent Difference (RPD) between the sample and duplicate results were within the acceptance criteria for all target compounds.

#### 7. SPIKE SAMPLE ANALYSIS

The laboratory used sample SKSWD031009 for the matrix spike sample. The MS percent recoveries were within the acceptance criteria (75%-125%) with the exception of Selenium in the total (0%) and dissolved (50%) fractions. As per the National Functional Guidelines: if the percent recovery is greater than 30% and less than 74% qualify detected results for that analyte with "J" and non-detected results with "UJ". If the percent recovery is less than 30% qualify detected results for that analyte with "J" and non-detected results with "R".

#### 8. ICP SERIAL DILUTION

As noted in the National Functional Guidelines: If the analyte concentration is at least 50 times above the IDL, its serial dilution analysis must then agree within 10% of the original determination after corrected for dilution. The serial dilution is performed to determine whether any significant chemical or physical interference's exist due to matrix effects. The serial dilution percent differences were within the acceptance criteria for all target analytes.

#### 9. SYSTEM PERFORMANCE

The analytical system appears to have been working well at the time of these analyses, based on the evaluation of the raw data.

#### 10. DOCUMENTATION

The documentation appeared accurate and in order.

#### 11. OVERALL ASSESSMENT

The percent recoveries for Copper in the Contract Required Detection Limit (CRDL) standards were 63.0, 62.9%, and 69.1%. The detected Copper results greater than the IDL but less than two times the CRDL were qualified with as estimated with "J". The percent recoveries for Selenium in the Contract Required Detection Limit (CRDL) standards were 62.4 and 64.2%. The Selenium results were previously qualified under Section 7-titled "Spike Sample Analysis". The results are acceptable with the validator-added qualifiers.

## DATA VALIDATION SUMMARY – SAMPLE DELIVERY GROUP 204030804 SEMIVOLATILE ORGANICS

Validation of the Gas Chromatograph/Mass Spectrometer (GC/MS) semi-volatile organics data, as prepared by Gulf Coast Analytical Laboratories (GCAL) for the samples collected from the Skinner Landfill site in March 2004, was conducted by Earth Tech using the National Functional Guidelines for Organic Data Review, (US EPA, October, 1999) as appropriate. The results were reported by GCAL under SDG 204030804.

GCAL#	Sample Description		
204030804-01	SKSWD031009		
204030804-02	SKSWD03D1009		
204030804-03	SKSWD03MS1009		
204030804-04	SKSWD03MSD1009		
204030804-06	SKSWDEB1009		

#### INTRODUCTION

Analyses were performed according to CLP-Organic Analysis Multi-Media, Multi-Concentration OLM04.2 SOW. Results of the sample analyses are reported by the laboratory as either qualified or unqualified. Unqualified results mean that the reported values may be used without reservation. Various data qualifier codes are used by the laboratory to denote specific information regarding the analytical results. The data validation process is intended to evaluate the data on a technical basis. The data package also was subjected to an internal laboratory quality review prior to submission to Earth Tech for data validation.

During the validation process, laboratory-qualified and unqualified data are verified against all available supporting documentation. Based on this evaluation, qualifier codes may be added, deleted or modified by the data user. Final results are therefore, either qualified or unqualified. Validator-qualified results are annotated with the following codes in accordance with the Functional Guidelines:

- U The constituent was analyzed for, but was not detected above the level of the associated analytical reporting limit. The associated value is either the sample quantitation limit or the sample detection limit.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Details of the semivolatile data validation findings and conclusions are provided in the following sections of this report:

- 1. Holding Times
- 2. GC/MS Tuning
- 3. Calibration
  - A. IC
  - B. CC
- 4. Blanks
- 5. System Monitoring Compound Recovery
- 6. MS/MSD
- Internal Standards Performance
- 8. Compound Identification
- 9. Constituent Quantitation and Reported Detection Limits
- 10. System Performance
- 11. Documentation
- 12. Overall Assessment

#### 1. HOLDING TIMES

All samples were initially extracted within the seven-day technical holding time and the five-day VTSR method holding time. The cooler temperature upon receipt at the laboratory was within the recommended temperature of  $4^{\circ}C + 2^{\circ}C$ .

#### 2. GC/MS TUNING

The samples were analyzed on a single GCMS system, identified as MSSV2. One decafluorotriphenylphosphine (DFTPP) tune was run representing the shift in which the standards and samples were analyzed. The DFTPP tune is acceptable.

#### 3. CALIBRATION

#### A. Initial Calibration

One IC dated 3/19/04 was analyzed in support of the semivolatile sample analyses. Documentation of the IC was present in the data package, and the Relative Response Factor (RRF), as well as percent % RSD values were accurately reported for all target compounds. The criteria employed for technical data review purposes are different than those used in the method. The laboratory must meet a minimum RRF of 0.01; however, for data review purposes, a RRF criterion of "greater than or equal to 0.05" is applied to all semi-volatile compounds. The RRF's and the average RRF were within the acceptance criteria specified in the method for all reported analytes. The %RSD's were within the acceptance criteria specified in the method for all target analytes with the exception of Di-n-butylphthalate (32.0%), Di-n-octylphthalate (30.3%) and Diethylphthalate (41.8%). The lowest point of the calibration curve was dropped for Di-n-butylphthalate, Di-n-octylphthalate, and Diethylphthalate and the %RSD were recalculated. The recalculated %RSD were within the acceptance criteria of less than 30%. Di-n-butylphthalate, Di-n-octylphthalate, and Diethylphthalate were not detected in the associated samples therefore data qualification was not required.

## B. Continuing Calibration

One CC dated 3/19/04 was analyzed in support of the semivolatile sample analyses reported in the data submissions. The RRF's for the CC dated 3/19/04 were within the acceptance criteria. The percent difference (%D) between the average RRF's and the CC Response Factors for the CC dated 3/19/04 were within the acceptance criteria with the exception the %D for Naphthalene. As per the National Functional Guidelines, if the %D exceeds the acceptance criteria qualify detected results for that analyte with "J" and non-detected results for that analyte with "UJ".

## 4. BLANKS

One laboratory semivolatile method blank and equipment bland were analyzed with this SDG. The results are summarized below.

## Method Blank (0308SBLK)

There were not target analytes detected in method blank 0308SBLK.

## Equipment Blank (SKSWDEB1009)

There were not target analytes detected in method blank SKSWDEB1009 collected on 3/2/04.

#### 5. SYSTEM MONITORING COMPOUND RECOVERY

All reported semivolatile system monitoring compounds were recovered within acceptable control limits.

## 6. MATRIX SPIKE MATRIX SPIKE DUPLICATE (MS/MSD)

Sample SKSWD031009 was submitted for MS MSD analysis. The MS/MSD percent recoveries were within the acceptance criteria with the exception of the 4-Nitorphenol. The %RPD between the MS/MSD were within the acceptance criteria. As per the National Functional Guidelines, no action is taken on MS/MSD data alone.

#### 7. INTERNAL STANDARDS PERFORMANCE

Internal standard areas and retention times were within acceptable limits for the reported semivolatile sample analyses.

#### 8. COMPOUND IDENTIFICATION

All reported semivolatile constituents were correctly identified with supporting chromatograms present in the data package.

### 9. CONSTITUENT QUANTITATION AND REPORTED DETECTION LIMITS

Constituent quantitations were correctly calculated and reported for semivolatile constituents.

#### 10. SYSTEM PERFORMANCE

The analytical system appears to have been working well at the time of these analyses, based on the evaluation of the raw data submitted for review.

#### 11. DOCUMENTATION

The documentation appeared accurate and in order with the exception of the following: GCAL inadvertently left the Date Extracted off of the CLP Form 1's therefore the data validator inserted the Date Extracted on the CLP Form 1's.

#### 12. OVERALL ASSESSMENT

The results are acceptable with the validator-added qualifiers.

## DATA VALIDATION SUMMARY – SAMPLE DELIVERY GROUP 204030804 VOLATILE ORGANIC

Validation of the GC/MS volatile organics data, as prepared by Gulf Coast Analytical Laboratories (GCAL) for the samples collected from the Skinner Landfill site in March 2004, was conducted by Earth Tech using the National Functional Guidelines for Organic Data Review, (US EPA, October, 1999), as appropriate. The results were reported by GCAL under SDG 204030804.

GCAL#	Sample Description		
204030804-01	SKSWD031009		
204030804-02	SKSWD03D1009		
204030804-03	SKSWD03MS1009		
204030804-04	SKSWD03MSD1009		
204030804-06	SKSWDEB1009		
204030804-07	Trip Blank		

#### INTRODUCTION

Analyses were performed according to CLP-Organic Analysis Low Concentration OLC02.0 SOW. Results of the sample analyses are reported by the laboratory as either qualified or unqualified. Unqualified results mean that the reported values may be used without reservation. Various qualifier codes are used by the laboratory to denote specific information regarding the analytical results. The data validation process is intended to evaluate the data on a technical basis. The data package also was subjected to an internal laboratory quality review prior to submission to Earth Tech for data validation.

During the validation process, laboratory-qualified and unqualified data are verified against all available supporting documentation. Based on this evaluation, qualifier codes may be added, deleted or modified by the data user. Final results are therefore, either qualified or unqualified. Validator-qualified results are annotated with the following codes in accordance with the Functional Guidelines:

- U The constituent was analyzed for, but was not detected above the level of the associated analytical reporting limit. The associated value is either the sample quantitation limit or the sample detection limit.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ The analyte was not detected above the reported sample quantitation limit.

However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

The volatiles data validation findings and conclusions are provided in the following sections of this report:

- 1. Holding Times
- 2. GC/MS Tuning
- 3. Calibration
  - A. IC
  - B. CC
- 4. Blanks
- 5. System Monitoring Compound Recovery
- 6. MS/MSD
- 7. Laboratory Control Sample
- 8. Internal Standards Performance
- 9. Compound Identification
- 10. Constituent Quantitation and Reported Detection Limits
- 11. System Performance
- 12. Documentation
- Overall Assessment

#### 1. HOLDING TIMES

All samples for Volatile Organic Compounds (VOC) analyses were analyzed within the 14-day technical holding time and the 10-day VTSR method holding time. The cooler temperature upon receipt at the laboratory was within the recommended temperature of 4°C +/- 2°C.

#### 2. GC/MS TUNING

All samples were analyzed on a single GC/MS system, identified as MSV2. One bromofluorobenzene (BFB) tune was run. The BFB tune is acceptable.

#### 3. CALIBRATION

#### A. Initial Calibration

One IC dated 3/13/04 was analyzed on Instrument MSV2 in support of the volatile sample analyses reported in the data submissions. Documentation of the IC standards was present in the data package, and RRF's as well as %RSD values were accurately reported. The criteria employed for technical data review purposes are different than those used in the method. The laboratory must meet a minimum RRF of 0.01; however, for data review purposes, a RRF criterion of "greater than or equal to 0.05" is applied to all volatile compounds. The %RSD's were within the acceptance criteria specified in the method for all target analytes. The RRF's and the average RRF for the IC dated 3/13/04 were within the acceptance criteria specified in the method for all target analytes with the exception of Acetone. As per the National Functional Guidelines, if any initial calibration RRF is less than 0.05, qualify positive results that have acceptable mass spectral identification with "J", using professional judgement, and non-detected analytes as unusable (R).

## B. Continuing Calibration

One CC dated 3/13/04 was analyzed on instrument MSV2 in support of the volatile sample analyses reported in the data submissions. The percent difference (%D) between the average RRF's and the CC RF's were within the acceptance criteria for all target analytes. The CC RRF's were within the acceptance criteria specified in the method for all target analytes with the exception of Acetone. The Acetone results were previously qualified under section 3A above.

#### 4. BLANKS

One laboratory volatile method blank, storage blank, Trip Blank, and an Equipment Blank were analyzed with this SDG. The results are summarized below.

#### V2BLK01 (MB151783)

Methylene chloride, Chloroform and 1,3-Dichlorobenzene were detected at concentrations of 0.12 ppb, 0.38 ppb, and 0.034 ppb respectively in the method blank analyzed on 3/13/04.

#### Storage Blank (VHBLK01)

Methylene chloride (0.15 ppb) and 1,4-Dichlorobenzene (0.21 ppb) were detected in the storage blank analyzed on 3/13/04.

## Trip Blank

Methylene chloride was detected at a concentration of 0.47 ppb in the Trip Blank submitted for the sampling event that occurred on 3.2.04. The Methylene chloride detected in the trip blank was mitigated by the presence of Methylene chloride in the associated method blank.

#### Equipment Blank (SKSWDEB1009)

Ethylbenzene (0.022 ppb), Methylene chloride (0.4 ppb), Styrene (0.06 ppb) Toluene (0.43 ppb) and total Xylenes (0.11 ppb) were detected in the Equipment Blank collected on 3/2/04. The analytes Ethylbenzene, Styrene. Toluene, and total Xylenes were not detected in the associated samples therefore no data qualification was not required. The Methylene chloride detected in the equipment blank was mitigated by the presence of Methylene chloride in the associated method blank.

#### 5. SYSTEM MONITORING COMPOUND RECOVERY

All reported volatile system monitoring compounds were recovered within acceptable control limits for all samples.

#### 6. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Sample SKSWD031009 was submitted for MS MSD analysis. The MS/MSD percent recoveries and %RPD between the MS MSD were within the acceptance criteria.

#### 7. LABORATORY CONTROL SAMPLE

A LCS was analyzed in conjunction with this SDG. Recoveries were within the control limit for all constituents.

#### 8. INTERNAL STANDARDS PERFORMANCE

Internal Standard areas and retention times were within acceptable limits for the reported volatile sample analyses.

#### 9. COMPOUND IDENTIFICATION

All reported VOCs were correctly identified with supporting chromatograms present in the data package.

## 10. CONSTITUENT QUANTITATION AND REPORTED DETECTION LIMITS

Constituent quantitations were correctly calculated and reported for VOCs with the exception of Ethylbenzene. The Ethylbenzene standard and detected results were originally quantitated using the incorrect quantitation ion (GCAL used 106 instead of 91).

GCAL corrected the mistake and re-submitted the corrected pages that were affected in the laboratory report. The overall effect had no impact in the final result for Ethylbenzene.

#### 11. SYSTEM PERFORMANCE

The analytical system appears to have been working well at the time of these analyses, based on the evaluation of the raw data.

## 12. DOCUMENTATION

The documentation appeared accurate and in order with the exception of the following: GCAL inadvertently left the "B" qualifier off of the CLP Form 1's for Methylene chloride therefore the data validator inserted a "B" qualifier in the "Q" column of the CLP Form 1's. The "B" qualifier indicates that the analyte was detected in the associated method blank.

#### 13. OVERALL ASSESSMENT

The Acetone detected in sample SKSWD03D1009 could be do to low level contamination because Acetone is a common laboratory contaminant and the fact that Acetone was not detected in the associated duplicate sample. The results are acceptable with the validator-added qualifiers.

# DATA VALIDATION SUMMARY - SAMPLE DELIVERY GROUP 204030804 PESTICIDES

Validation of the Gas Chromatography (GC) pesticides data, as prepared by Gulf Coast Analytical Laboratories (GCAL) for the samples collected from the Skinner Landfill site in March 2004, was conducted by Earth Tech using the National Functional Guidelines for Organic Data Review, (US EPA, October, 1999), as appropriate. The results were reported by GCAL under SDG 204030804.

GCAL#	Sample Description			
<b>204</b> 03080 <b>4-0</b> 1	SKSWD031009			
204030804-02	SKSWD03D1009			
204030804-03	SKSWD03MS1009			
204030804-04	SKSWD03MSD1009			
204030804-06	SKSWDEB1009			

#### INTRODUCTION

Analyses were performed according to CLP-Organic Analysis Multi-Media, Multi-Concentration OLM04.2 SOW. Results of the sample analyses are reported by the laboratory as either qualified or unqualified. Unqualified results mean that the reported values may be used without reservation. Various qualifier codes are used by the laboratory to denote specific information regarding the analytical results.

The data validation process is intended to evaluate the data on a technical basis. The data package also was subjected to an internal laboratory quality review prior to submission to Earth Tech for data validation.

During the validation process, laboratory-qualified and unqualified data are verified against all available supporting documentation. Based on this evaluation, qualifier codes may be added, deleted or modified by the data user. Final results are therefore, either qualified or unqualified. Validator-qualified results are annotated with the following codes in accordance with the Functional Guidelines:

- U The constituent was analyzed for, but was not detected above the level of the associated analytical reporting limit. The associated value is either the sample quantitation limit or the sample detection limit.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Details of the pesticide data validation findings and conclusions are provided in the following sections of this report:

- 1. Holding Times
- 2. Gas Chromatograph/Electronic Capture Detector (GC/ECD) Instrument Performance Check
- 3. IC
- 4. Calibration Verification
- Blanks
- 6. Surrogate Spikes
- 7. Matrix Spike/Matrix Spike Duplicate (MS/MSD)
- 8. Pesticide Cleanup Checks
- 9. Target Compound Identification
- 10. Constituent Quantitation and Reported Detection Limits
- 11. Documentation
- 12. Overall Assessment

#### 1. HOLDING TIMES

All samples were extracted within the seven-day technical holding time and the five-day VTSR method holding time. The cooler temperature upon receipt at the laboratory was within the recommended temperature of 4°C +/- 2°C.

#### 2. GC/ECD INSTRUMENT PERFORMANCE CHECK

The Performance Evaluation Mixture (PEM) was analyzed at the correct frequency. Absolute retention times were within limits. The percent resolution between adjacent peaks was within QC limits for the Pesticide Analyte Resolution Check. The percent resolution between adjacent peaks is within QC limits for the Performance Evaluation Mixtures (PEM).

The percent breakdown for both 4,4-DDT and Endrin in each PEM was less than 20.0% for both GC columns. The combined percent breakdown for 4,4-DDT and Endrin in each PEM was less than 30.0% for both GC columns.

#### 3. INITIAL CALIBRATION

Individual standard mixtures A and B were analyzed at the correct frequencies and concentrations. The percent resolution criterion was met for Individual standard mixtures A and B.

The Percent Relative Standard Deviation (%RSD) of the calibration factors for each of the single component pesticides was less than 20%.

The multi-component target compounds were analyzed separately on both columns at a single concentration level. Retention times were determined from a minimum of three peaks.

## 4. CALIBRATION VERIFICATION

Absolute retention times were within appropriate time retention windows

### 5. BLANKS

One laboratory method blank and equipment blank were analyzed with this SDG. The results are summarized below.

#### Method Blank 151585

No constituents were detected above the laboratory-reporting limit. This blank corresponds to all samples extracted on 3/8/04.

## **Equipment Blank SKSWDEB1009**

No constituents were detected above the laboratory-reporting limit in the equipment blank collected on 3/2/04.

## 6. SURROGATE SPIKES

Decachlorobiphenyl (DCB) and tetrachloro-m-xylene (TCX) surrogate spike recoveries were within the acceptance criteria for all samples except for TCX and DCB associated with sample SKSWD031009. There were no target compounds detected in sample SKSWD031009 therefore no action was taken.

## 7. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

There were no samples submitted for MS MSD analysis during this sampling event.

## 8. PESTICIDE CLEANUP CHECKS

Recoveries of all pesticides and surrogates were within 80-120% for the lot of Florisil cartridges utilized for pesticide cleanup with the exception of Endrin (135%), 4,4'-DDT (139%) and Methoxychlor (121%). There were no target compounds detected in the associated samples therefore no action was taken.

## 9. TARGET COMPOUND IDENTIFICATION

All reported pesticide data were correctly identified with supporting chromatograms present in the data package.

## 10. CONSTITUENT QUANTITATION AND REPORTED DETECTION LIMITS

Constituent quantitations were correctly calculated and reported for pesticide constituents.

#### 11. DOCUMENTATION

The documentation appeared accurate and in order.

#### 12. OVERALL ASSESSMENT

The results are acceptable with the validator-added qualifiers.

## REFERENCES

US EPA, 1994. National Functional Guidelines for Inorganic Data Review.

US EPA, 1999. National Functional Guidelines for Organic Data Review.



## **ANALYTICAL RESULTS**

#### **PERFORMED BY**

**GULF COAST ANALYTICAL LABORATORIES, INC.** 

Report Date 03/31/2004

GCAL Report 204030804

Deliver To Earth Tech 200 Vine Street Wilder, KY 41076 859-442-2300

Attn Pat Higgins

Customer Earth Tech

Project Skinner Landfill

000001

#### CASE NARRATIVE

Client: Earth Tech Report: 204030804

Gulf Coast Analytical Laboratories received and analyzed the sample(s) listed on the sample cross-reference page of this report. Receipt of the sample(s) is documented by the attached chain of custody. This applies only to the sample(s) listed in this report. No sample integrity or quality control exceptions were identified unless noted below.

#### **SEMI-VOLATILES MASS SPECTROMETRY**

In the prep batch 270522, the MS/MSD exhibited sporadic recovery failures.

#### **SEMI-VOLATILES GAS CHROMATOGRAPHY**

In the Pesticide Florisil check analysis, the recoveries for Endrin, 4,4-DDT and Methoxychor were above recovery limits; however, these compounds were not detected in the associated samples.

In the Pesticide analysis for sample 20403080401 (SKSWD031009), the surrogate Tetrachloro-m-xylene and Decachlorobiphenyl are above the control limits.

#### **METALS**

In the ILM04.1 - CLP Metals analysis for prep batches 270882 and 270883, the MS recovery was outside the control limits for Selenium. The LCS recovery was within control limits. This indicates the analysis is in control and the sample is affected by matrix interference. A post-digestion spike was performed on the QC sample for these batches with a recovery of 88% and 99%.

## Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with GCAL's Standard Operating Procedures.

#### Common Abbreviations Utilized in this Report

ND	Indicates the result was Not Detected at the specified RDL
DO	Indicates the result was Diluted Out
MI	Indicates the result was subject to Matrix Interference
TNTC	Indicates the result was Too Numerous To Count
SUBC	Indicates the analysis was Sub-Contracted
FLD	Indicates the analysis was performed in the Field
PQL	Practical Quantitation Limit
MDL	Method Detection Limit

RDL Reporting Detection Limit

00:00 Reported as a time equivalent to 12:00 AM

#### Reporting Flags Utilized in this Report

J	Indicates an estimated value
ប	Indicates the compound was analyzed for but not detected
В	(ORGANICS) Indicates the analyte was detected in the associated Method Blank
В	(INORGANICS) Indicates the result is between the RDL and MDL

Sample receipt at GCAL is documented through the attached chain of custody. In accordance with ISO Guide 25 and NELAC, this report shall be reporduced only in full and with the written permission of GCAL. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with the terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

**CURTIS EKKER** DATA VALIDATION MANAGER **GCAL REPORT 204030804** 

THIS REPORT CONTAINS \_\_\_\_\_ PAGES.

# Report Sample Summary

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20403080401	<b>SKSWD0310</b> 09	Water	03/02/2004 10:55	03/06/2004 11:50
20403080402	<b>SKSWD03</b> D1009	Water	03/02/2004 11:18	03/06/2004 11:50
20403080403	SKSWD03MS1009	Water	03/02/2004 11:45	03/06/2004 11:50
20403080404	SKSWD03MSD1009	Water	03/02/2004 12:08	03/06/2004 11:50
20403080405	SKSWD03DUP1009	Water	03/02/2004 12:08	03/06/2004 11:50
20403080406	SKSWDEB1009	Water	03/02/2004 12:40	03/06/2004 11:50
20403080407	TRIP BLANK	Water	03/02/2004 00:00	03/06/2004 11:50
20403080408	SKSWD031009 (DISS)	Water	03/02/2004 10:55	03/06/2004 11:50
20403080409	SKSWD03D1009 (DISS)	Water	03/02/2004 11:18	03/06/2004 11:50
20403080410	SKSWD03MS1009(DISS)	Water	03/02/2004 11:45	03/06/2004 11:50
20403080411	SKSWD03DUP1009(DISS)	Water	03/02/2004 12:08	03/06/2004 11:50
20403080412	SKSWDEB1009(DISS)	Water	03/02/2004 12:40	03/06/2004 11:50

## 1A VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: GC/	AL Contract:				SKSWD031009
Lab Code: LA02				•	030804
Matrix: (soil/water					
	25 (g/ml) mL	Lab Sample ID:	20403080	1401	
•					·····
					4055
	ec		03/02/04	IIme:	1055
GC Column: DB	-624-30M ID: <u>.53</u> (mm)	Date Received:	03/06/04		
Instrument ID: M	ISV2	Date Analyzed:	03/13/04	Time:	1434
Soil Extract Volum	ne: (µL)	Dilution Factor:	1	Analys	: RSP
	ne:(µL)	Prep Batch:		Analytic	cal Batch: 270560
		Analytical Metho			
CONCENTRATI	ON UNITS: ug/L	,, acc. 4.0th			
CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-55-6	1,1,1-Trichloroethane	1.0	T	0.010	1.0
79-34-5	1,1,2,2-Tetrachloroethane	1.0	υ	0.010	1.0
79-00-5	1,1,2-Trichloroethane	1.0	<del>                                     </del>	0.010	1.0
75-34-3	1,1-Dichloroethane	1.0	U	0.010	1.0
75-35-4	1,1-Dichloroethene	1.0	U	0.010	1.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.010	1.0
106-93-4	1,2-Dibromoethane	1.0	U	0.010	1.0
95-50-1	1,2-Dichlorobenzene	1.0	U	0.010	1.0
107-06-2	1,2-Dichloroethane	1.0	T U	0.010	1.0
540-59-0	1,2-Dichloroethene	1.0	U	0.010	1.0
78-87-5	1,2-Dichloropropane	1.0	U	0.010	1,0
541-73-1	1,3-Dichlorobenzene	1.0	T U	0.010	1.0
106-46-7	1,4-Dichlorobenzene	1.0	U	0.010	1.0
78-93-3	2-Butanone	5.0	U	0.010	5.0
591-78-6	2-Hexanone	5.0	U	0.010	5.0
108-10-1	4-Methyl-2-pentanone	5.0	Ü	0.010	5.0
67-64-1	Acetone	5.0	U	0.010	5.0
71-43-2	Benzene	1.0	U	0.010	1.0
75-27-4	Bromodichloromethane	1.0	U	0.010	1.0
75-25-2	Bromoform	1.0	U	0.010	1.0
74-83-9	Bromomethane	1.0	U	0.010	1.0
75-15-0	Carbon disulfide	1.0	U	0.010	1.0
56-23-5	Carbon tetrachloride	1.0	U	0.010	1.0
108-90-7	Chlorobenzene	1.0	U	0.010	1.0
75-00-3	Chloroethane	1.0	U	0.010	1.0
67-66-3	Chloroform	1.0	U	0.010	1.0
74-87-3	Chloromethane	1.0	U	0.010	1.0
124-48-1	Dibromochloromethane	1.0	U	0.010	1.0
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.010	1.0
10061-02-6	trans-1,3-Dichloropropene	1.0	U	0.010	1.0
100-41-4	Ethylbenzene	1.0	U	0.010	1.0
75-09-2	Methylene chloride	2.0 0.12	BILL	0.010	2.0
100-42-5	Styrene	1.0	U	0.010	1.0

## VOLAT LE ORGANIOS ANALYSIS DATA SHEET

SAMPLE NO.

SKSWD031009 Lab Name: GCAL Contract: Tase No.: 548 No.: SDG No.: 204030804 Lati Code: LA024 Matrix (soil/water) Water Sample wt/vol: 25 (gm/ mu Lab Sample (D) 20403080401 Level: (fowlmed) Lab File ID 2040313/T2457 % Moisture: not dec. Date Collected: 03/02/04 Time: 1055 GC Column: D8-624-30M (D: 153 (mm)) Date Received: 03/06/04 Instrument ID: MSV2 Date Analyzed: 03/13/04 Time: 1434 Soil Extract Volume: ( p. ) Dilution Factor: 1 Analyst: RSP Soil Aliquot Volume: [ [ µL ] Prep Batch: Analytical Batch: 270560 Analytical Method: OLC02.1 - CLP Vo CONCENTRATION UNITS: Up/L **COMP**OUND RL CAS NO. RESULT Q MDL 127-16-4 Tetrachlordemene Ū 0.010 1.0 106-88-3 Toluene U 0.010 1.0 79-01-6 Trichloroemene U 0.C10 1.0 Vinyl chloride 75-01-4 Ü 0.010 1.0

U

0.010

1.0

1330-20-7

Xylene (to:a

## 1A VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

Lob Names - GC/	VOZ (()22	troot:				SKSWD03D1009
	AL Con					<del> </del>
Lab Code: LA02	Case No.:		SAS No.:	<del></del>	SDG No.: 204	030804
Matrix: (soil/water)	Water					
Sample wt/vol: _2	25 (g/ml) mL		Lab Sample ID:	204030804	02	<del></del>
	<u></u>		Lab File ID: 20	40313/T2456	3	
	ec		Date Collected:	03/02/04	Time:	1118
	-624-30M ID: .53		Date Received:	03/06/04		
<del></del>	SV2		Date Analyzed:	03/13/04	Time:	1408
	ie:				Analys	<del></del>
Soil Aliquot Volum	e:	_ (µL)	Prep Batch:		Analyti	cal Batch: 270560
CONCENTRATI	ON UNITS: ug/L		Analytical Metho	d: OLC02.1	- CLP Vo	
CAS NO.	COMPOUND		RESULT	Q	MDL	RL
71-55-6	1,1,1-Trichloroethane		1.0	U	0.010	1.0
79-34-5	1,1,2,2-Tetrachloroethane		1.0	U	0.010	1.0
79-00-5	1,1,2-Trichloroethane	<del></del>	1.0	U	0.010	1.0
75-34-3	1,1-Dichloroethane		1.0	U	0.010	1.0
75-35-4	1,1-Dichloroethene		1.0	U	0.010	1.0
120-82-1	1,2,4-Trichlorobenzene		1.0	Ü	0.010	1.0
106-93-4	1,2-Dibromoethane	<del></del> -	1.0	U	0.010	1.0
95-50-1	1,2-Dichlorobenzene		1.0	Ü	0.010	1.0
107-06-2	1,2-Dichloroethane		1.0	· U	0.010	1.0
540-59-0	1,2-Dichloroethene	······································	1.0	U	0.010	1.0
78-87-5	1,2-Dichloropropane		1.0	U	0.010	1.0
541-73-1	1,3-Dichlorobenzene		1.0	U	0.010	1.0
106-46-7	1,4-Dichlorobenzene		1.0	U	0.010	1.0
78-93-3	2-Butanone		5.0	U	0.010	5.0
591-78-6	2-Hexanone		5.0	U	0.010	5.0
108-10-1	4-Methyl-2-pentanone		5.0	U	0.010	5.0
67-64-1	Acetone		3.1	J	0.010	5.0
71-43-2	Benzene	····	1.0	U	0.010	1.0
75-27-4	Bromodichloromethane		1.0	U	0.010	1.0
75-25-2	Bromoform		1.0	U	0.010	1.0
74-83-9	Bromomethane		1.0	U	0.010	1.0
75-15-0	Carbon disulfide		1.0	U	0.010	1.0
56-23-5	Carbon tetrachloride		1.0	U	0.010	1.0
108-90-7	Chlorobenzene		1.0	U	0.010	1.0
75-00-3	Chloroethane		1.0	υ	0.010	1.0
67-66-3	Chloroform		1.0	U	0.010	1.0
74-87-3	Chloromethane		1.0	U	0.010	1.0
124-48-1	Dibromochloromethane		1.0	U	0.010	1.0
10061-01-5	cis-1,3-Dichloropropene		1.0	U	0.010	1.0
10061-02-6	trans-1,3-Dichloropropene		1.0	U	0.010	1.0
100-41-4	Ethylbenzene		1.0	U	0.010	1.0
75-09-2	Methylene chloride		2.0,028	34 CL	0.010	2.0
100-42-5	Styrene		1.0	U	0.010	1.0

5/5/04

## VOLATILE ORGAN OS ANALYS SIDATA SHEET

SAMPLE NO.

0.010

0.010

1.0

1.0

Lab Name: G	<b>CAL</b>	Contract:				SKSWD03D1009
Lab Code: LA	024 Case No.:				SDG No.: 2040	30804
Matrix (soil/wat	er) Water					
Sample w//vot	25 (g.m): mL		Lab Samble ID:	2040308040	2	
evet (low/med	)		Lab File © 20	40313/T2456		
% Moisture: not	dec	<u></u>	Date Collected:	C3/02/04	Time:	1118
3C Column: D	B-624-30M (D: .53	(mm)	Date Received:	03/06/04		
nstrument ID:	MSV2		Date Analyzed:	03/13/04	Time:	1408
Soil Extract Volu	ıme:	(pL)	D€ubon Factor:	1	Analyst	RSP
Sail Aliquot Valu	ime:	(µL)	Prep Bater		Analytic	al Batch: 270560
CONCENTRA	TION UNITS: ugL		Analytical Metho	d: OLC02.1	CLP Vo	
CAS NO.	COMPOUND		RESULT	Q	MDL	RL
127-18-4	Tetrachloroethene		13	U	0.010	1.0
108-86-3	Toluene		1.3	U	0.010	1.0
79-01-6	Trichlorcethere		10	U	0.010	1.0

• 5

U

75-01-4

1330-20-7

Vinyl chlorice

Xylene (total)

#### 1A VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name CC	CAL	tt-	50 VIAUF I 010 DV IV	SHEET		SKSWDEB1009	
	CAL Con						
Lab Code: LAC	024 Case No.:		SAS No.:		SDG No.: 2040	30804	
Matrix: (soil/wate	er) Water						
Sample wt/vol:	25 (g/ml) mL	<u></u>	Lab Sample ID:	20403080	406		<b>-</b>
Level: (low/med)			Lab File ID: 20	40313/T245	8		_
	dec.			03/02/04	Time:	1240	
	B-624-30M ID: .53		Date Received:	03/06/04			-
	MSV2		Date Analyzed:	03/13/04	Time:	1459	-
	me:				<del>-</del>	RSP	-
							-
Soil Aliquot Volu	me:	(hr)	Prep Batch:		Analytic	al Batch: 270560	)
CONCENTRAT	TION UNITS: ug/L		Analytical Metho	d: OLC02.	1 - CLP Vo		
CAS NO.	COMPOUND		RESULT	Q	MDL	RL	
71-55-6	1,1,1-Trichloroethane		1.0	T U	0.010	1.0	
79-34-5	1,1,2,2-Tetrachioroethane		1.0	<del>                                     </del>	0.010	1.0	
79-00-5	1,1,2-Trichloroethane		1.0	<del>                                     </del>	0.010	1.0	
75-34-3	1.1-Dichloroethane		1.0	1	0.010	1.0	$\dashv$
75-35-4	1,1-Dichloroethene		1,0	1 0	0.010	1.0	$\dashv$
120-82-1	1,2,4-Trichlorobenzene		1.0	1 0	0.010	1.0	-1
106-93-4	1,2-Dibromoethane		1.0	<del>                                     </del>	0.010	1.0	
95-50-1	1,2-Dichlorobenzene		1.0	<del>                                     </del>	0.010	1.0	
107-06-2	1,2-Dichloroethane		1.0.	1 0	0.010	1.0	$\dashv$
540-59-0	1,2-Dichloroethene		1.0	1 0	0.010	1.0	
78-87-5	1,2-Dichloropropane		1.0	<del>                                     </del>	0.010	1.0	
541-73-1	1,3-Dichlorobenzene		1.0	1 U	0.010	1.0	ㅓ
106-46-7	1,4-Dichlorobenzene		1.0	Ü	0.010	1.0	-
78-93-3	2-Butanone		5.0	Ū	0.010	5.0	-
591-78-6	2-Hexanone		5.0	l ū	0.010	5.0	
108-10-1	4-Methyl-2-pentanone		5.0	U	0.010	5.0	$\dashv$
67-64-1	Acetone		5.0	U	0.010	5.0	78
71-43-2	Benzene	·	1.0	U	0.010	1.0	7
75-27-4	Bromodichloromethane		1.0	Ú	0.010	1.0	7
75-25-2	Bromoform		1.0	U	0.010	1.0	$\neg$
74-83-9	Bromomethane		1.0	U	0.010	1.0	$\neg$
75-15-0	Carbon disulfide		1.0	U	0.010	1.0	
56-23-5	Carbon tetrachloride		1.0	U	0.010	1.0	
108-90-7	Chlorobenzene		1.0	U	0.010	1.0	7
75-00-3	Chloroethane		1.0	U	0.010	1.0	]
67-66-3	Chloroform		1.0	U	0.010	1.0	
74-87-3	Chloromethane		1.0	U	0.010	1.0	
124-48-1	Dibromochloromethane		1.0	U	0.010	1.0	
10061-01-5	cis-1,3-Dichloropropene		1.0	U	0.010	1.0	
10061-02-6	trans-1,3-Dichloropropene		1.0	U	0.010	1.0	
100-41-4	Ethylbenzene		0.022	J	0.010	1.0	
75-09-2	Methylene chloride		2,0040	34	0.010	2.0	]u
100-42-5	Styrene		0.060	J	0.010	1.0	7

# VOLATILE ORGANICS ANALYSIS DATA SHEET

 SKSWDEB1009	

Lab Name: G	CAL Co	ntract:				
Lab Code: LA	024 Case No.:		545 No.:		SDG No.: 2040	30804
Matric (soil/wat	er) Water					
Sample wt/vot:	25 (ÇITI) mL		Lab Sample ID:	2040308040	06	<u> </u>
Level: (low/med	)		Lab File ID 20	40313/T2458		
% Maisture: not	dec	·	Date Collected:	03/02/04	Time:	1240
GC Column: D	B-624-30M ID: 53	(វារាកៈ	Date Received:	03/06/04		·
instrument 10:	MSV2		Date Analyzed:	03/13/04	Time: _	1459
Soil Extract Volu	une:	(p_)	Dilution Factor:	1	Analyst:	RSP
Soil Aliquot Volu	me:	(pL)	Prep Batch:		Analytica	al Batch: 270560
CONCENTRA	TION UNITS: ugt.		Analytica Metho	od: OLC02.1	- CLP Vo	
CAS NO.	COMPOUND		RESULT	Q	MDL	RL
127-18-4	Tetrachlorcethene	<del></del>	1:	U ·	0.010	1.0
106-68-3	Tokuene		0.43	J	0.010	1.0
79-01-6	Trichloroethene		·:	U	0.010	1.0
75-01-4	Vinyl chiande	<del></del>	• :	U	0.010	1.0
1330-20-7	Xylene (total:		5.11	1	0.010	1.0

## 1A VOLATILE ORGANICS ANALYSIS DATA SHEET

Lah Name: GO	CAL Contrac	ıt.				TRIP BLANK
						20904
	024 Case No.:		MS No		3DG No.: 2040	30804
Matrix: (soil/wate	er) <u>Water</u>					
Sample wt/vol:	25 (g/ml) mL		Lab Sample ID:	204030804	107	
Level: (low/med)	)		Lab File ID: 20-	40313/T245	9	
	dec.		Date Collected:	03/02/04	Time:	0000
	B-624-30M ID: .53		Date Received:	03/06/04		
	MSV2		Date Analyzed:	03/13/04	Time:	1524
	ime:				Analyst:	
Soil Aliquot Volu	me:	( µL )	Prep Batch:		Analytic	al Batch: 270560
CONCENTRA	TION UNITS: ug/L		Analytical Metho	d: OLCO2.	1 - CLP Vo	
CAS NO.	COMPOUND		RESULT	Q	MDL	RL
71-55-6	1,1,1-Trichloroethane		1.0	U	0.010	1.0
79-34-5	1,1,2,2-Tetrachloroethane		1.0	U	0.010	1.0
79-00-5	1,1,2-Trichloroethane		1.0	U	0.010	1.0
75-34-3	1,1-Dichloroethane		1.0	U	0.010	1,0
75-35-4	1,1-Dichloroethene		1.0	U	0.010	1.0
120-82-1	1,2,4-Trichlorobenzene		1.0	U	0.010	1.0
106-93-4	1,2-Dibromoethane		1.0	U	0.010	1.0
95-50-1	1,2-Dichlorobenzene		1.0	U	0.010	1.0
107-06-2	1,2-Dichloroethane		1.0	U	0.010	1.0
540-59-0	1,2-Dichloroethene		1.0	U	0.010	1.0
78-87-5	1,2-Dichloropropane		1.0	U	0.010	1.0
541-73-1	1,3-Dichlorobenzene		1.0	U	0.010	1.0
106-46-7	1,4-Dichlorobenzene		1.0	U	0.010	1.0
78-93-3	2-Butanone		5.0	U	0.010	5.0
591-78-6	2-Hexanone		5.0	U	0.010	5.0
108-10-1	4-Methyl-2-pentanone		5.0	U	0.010	5.0
67-64-1	Acetone		5.0	U	0.010	5.0
71-43-2	Benzene		1.0	U	0.010	1.0
75-27-4	Bromodichloromethane		1.0	U	0.010	1.0
75-25-2	Bromoform		1.0	U	0.010	1.0
74-83-9	Bromomethane		1.0	U	0.010	1.0
75-15-0	Carbon disulfide		1.0	U	0.010	1.0
56-23-5	Carbon tetrachloride		1.0	U	0.010	1.0
108-90-7	Chlorobenzene	<del></del>	1.0	U	0.010	1.0
75-00-3	Chloroethane		1.0	U	0.010	1.0
67-66-3	Chloroform		1.0	U	0.010	1.0
74-87-3	Chloromethane		1.0	U	0.010	1.0
124-48-1	Dibromochloromethane		1.0	U	0.010	1.0
10061-01-5	cis-1,3-Dichloropropene		1.0	Ų	0.010	1.0
10061-02-6	trans-1,3-Dichloropropene		1.0	U	0.010	1.0
100-41-4	Ethylbenzene		1.0	U	0.010	1.0
75-09-2	Methylene chloride		2.0 947	3	0.010	2.0
400 40 5	Character		4.0		0.040	1

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## VOLATILE ORGAN IS ANALYSIS DATA SHEET

	Sample No.	
1	TRIP BLANK	
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Lab Name: G	CAL 30	ontract				THE BOAR
	024 Case No.:		SAS No.		SDG No.: 2040	30804
katrix: (soil/wat	er) Water					
ample wt/vol:	25 (g/m²) mL		Lab Sample ID:	2040308040	07	
evel: (low/med	n		Lab File ID: 20	4031 <b>3</b> /T2459		
6 Moisture: not	dec.		Date Collected:	03/02/04	Time:	0000
GC Column: D	08-624-30M ID: .53	(m-	Date Received:	03/06/04		
nstrument ID:	MSV2	<del></del>	Date Analyzed:	03/13/04	Time:	1524
ioil Extract Vol.	ume:	(µ_'	Dilution Factor:	1	Analyst	RSP
oil Aliquot Volu	лле:	(44)	Prep Batch	<del></del>	Analytic	al Batch: 270560
CONCENTRA	TION UNITS UGC		Analytical Metho	d OLC02.1	-CLP Vo	
CAS NO.	COMPOUND		RESULT	Q	MDL	RL
127-18-4	Tetrachloroethene		1.0	U	0.010	1.0
106-88-3	Toluene		: :	U	0.010	1.0
79-01-6	Trichloroethene		10	U	0.010	1.0
75-01-4	Vinyl chloride		10	U	0.010	1.0
1330-20-7	Xviene itota			ii ii	0.010	10

#### 1B SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: GC	CAL	Sample ID: _S	SKSWD031	009	
Lab Code: LAC	24 Case No.:	Contract:			
SAS No.:	SDG No.: 204030804	Lab File ID: _2	2040319/S49	997	
Matrix: Water		Lab Sample ID	: 2040308	0401	
Sample wt/vol:	1000 Units: mL	Date Collected	1: 03/02/04	Time:	1055
•		Date Received	<del></del>	- <del> </del>	1000
	do a pho de AVAN				
	decanted: (Y/N)	Date Extracted			4000
GC Column: DI	B-5MS-30M ID: .25 (mm)	Date Analyzed			1323
Concentrated Ex	tract Volume: 1000 (µL)	Dilution Factor	: 1	Analy	st: RLW
Injection Volume	:(µL)	Prep Method:			
	//N) N pH:	Analytical Meth	nod: OLM	0 4.2	
		Instrument ID:	MSSV2		
CONCENTRATION	ON UNITS: ug/L	Prep Batch:		Analytical Ba	tch: 271099
CAS NO.	COMPOUND	RESULT		MDL	PQL
95-95-4	2,4,5-Trichlorophenol	10.0	l u	0.010	10.0
88-06-2	2,4,6-Trichlorophenol	10.0	U	0.010	10.0
120-83-2	2,4-Dichlorophenol	10.0	Ū	0.010	10.0
51-28-5	2,4-Dinitrophenol	25.0	U	0.010	25.0
121-14-2	2,4-Dinitrotoluene	10.0	Ü	0.010	10.0
606-20-2	2,6-Dinitrotoluene	10.0	U	0.010	10.0
91-58-7	2-Chloronaphthalene	10.0	Ü	0,010	10.0
95-57-8	2-Chlorophenol	10.0	Ū	0.010	10.0
91-57-6	2-Methylnaphthalene	10.0	Ū	0.010	10.0
88-74-4	2-Nitroaniline	25.0	Ū	0.010	25.0
88-75-5	2-Nitrophenol	10.0	u	0.010	10.0
91-94-1	3,3'-Dichlorobenzidine	10.0	Ū	0.010	10.0
99-09-2	3-Nitroaniline	25.0	Ü	0.010	25.0
534-52-1	2-Methyl-4,6-dinitrophenol	25.0	Ü	0,010	25.0
59-50-7	4-Chloro-3-methylphenol	10.0	U	0.010	10.0
106-47-8	4-Chloroaniline	10.0	υ	0.010	10.0
7005-72-3	4-Chlorophenyl-phenylether	10.0	U	0.010	10.0
106-44-5	4-Methylphenol (p-Cresol)	10.0	U	0.010	10.0
83-32-9	Acenaphthene	10.0	U	0.010	10.0
208-96-8	Acenaphthylene	10.0	U	0.010	10.0
120-12-7	Anthracene	10.0	U	0.010	10.0
56-55-3	Benzo(a)anthracene	10.0	U	0.010	10.0
50-32-8	Benzo(a)pyrene	10.0	υ	0.010	10.0
205-99-2	Benzo(b)fluoranthene	10.0	U	0.010	10.0
191-24-2	Benzo(g,h,i)perylene	10.0	U	0.010	10.0
207-08-9	Benzo(k)fluoranthene	10.0	U	0.010	10.0
111-91-1	Bis(2-Chloroethoxy)methane	10.0	U	0.010	10.0
111-44-4	Bis(2-Chloroethyl)ether	10.0	U	0.010	10.0
108-60-1	bis(2-Chloroisopropyl)ether	10.0	U	0.010	10.0
117-81-7	bis(2-ethylhexyl)phthalate	10.0	U	0.010	10.0

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## SEMINOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: GO	CAL	Sample ID:	SKS/WD031	009		_
Lab Code: LAG	24 Case No.:	Contract				
SAS No.:	SDG No : 204030604	Lab File ID	2040319/\$4	997	<del></del>	
Matrix Water		Lab Sample II	D: 2040308	30401		
-		Data Callaga			10EE	
Sample wovor:	1000 Units: mL	Jale Collecter	03/02/04	Time:	1033	-
Level. (low/med)		Date Received	: <u>03/06/0</u> 4	<u> </u>		_
	decanted: (YfN)	Date Extracted	ા કોઇ	ye		_
	B-5MS-30M (D: _25 (mm)	Date Analyzed	: 03/19/04	t Time	1323	_
	tract Volume 1000 (JL)			Analy		
		Prep Method:				_
	c 10 (pL)	Analytical Met		0.4.2		_
GPC Cleanup: (1	(N) N pH:	•		<del></del>		_
CONCENTRATION	ON UNITS: 091	Instrument ID:		Angletical Co	.brsh: 274000	<del></del>
CACNO	COMPOUND			Analytical Ba MDL	PQL	<del>-</del>
CAS NO.	COMPOUND	RESULT			10.0	7
101-55-3 85-68-7	4-Bromopheriyl-phenylether	1 13.0	U	0.010	10.0	
	Butylbenzytonthalate	<del></del>	+		10.0	
86-74-8	Carbazole	10 (	U	0.010	10.0	-
218-01-9	Chrysene		+	0.010		-
84-74-2	Di-n-butyliphthatate	10.0	U U	0.010	10.0	4
117-84-0	Di-n-octylohtt-akate	13.2	U	0.010	10.0	_
53-70-3	Diberiz(a,hilanthracene	10.1	U	0.010	10.0	4
132-64-9	Dibenzofurar	100	U	0.010	10.0	<b>⊣</b>
84-66-2	Diethylphtnalate	10.0	U	0.010	10.0	4
131-11-3	Dimethyl-pnthalate	10.0	Ü	0.010	10.0	-i
105-67-9	2,4-Dimethylcherol	10.0	U	0.010	10.0	_
206-44-0	Fluoranthene	10.0	U	0.010	10.0	┙
<b>86-73-7</b>	Fluorene	10.0	U	0.010	10.0	╛
118-74-1	Hexachlorobenzene	10.0	υ	0.010	10.0	_
87-68-3	Hexachlorobutaciene	*5.5	U	0.010	10.0	_
77-47-4	Hexachlorocyclopentacliene	10.0	U	0.010	10.0	┙
67-72-1	Hexachloroethane	•:::	U	0.010	10.0	_
193-39-5	Indeno(1,2,3-td dyrene	10.0	U	0.010	10.0	
78-59-1	Isophorone	16.0	U	0.010	10.0	_]
91-20-3	Naphthalene	10.0	U	0.010	10.0	] u3
100-01-6	4-Nitroaniène	<b>25</b> C	U	0.010	25.0	
98-95-3	Nitrobenzene	10.0	U	0.010	10.0	
100-02-7	4-Nitropheno	25 :	U	0.010	25.0	
87-86-5	Pentachloroptenal	25.5	U	0.010	25.0	7
85-01-8	Phenanthrene	::::	U	0.010	10.0	7
108-95-2	Phenol	•5.5	Ū	0.010	10.0	7
129-00-0	Pyrene	10.0	U	0.010	10.0	7
621-64-7	N-Nitroso-di-n-progytamine	10.0	U	0.010	10.0	_
86-30-6	N-Mirosodipheni/amine	*0.0	U	0.010	10.0	7
95-48-7	o-Cresol	10.0	U	0.010	10.0	<b>-</b>

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FORM I SV-1

#### 1F SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: GCAL	Sample ID: SKSWD031009
Lab Code: LA024 2 Case No.:	Contract:
SAS No.: SDG No.: 2040308	
Matrix: Water	Lab Sample ID: 204030804C1
Sample wt/vol: Units:	Date Collected: 03/02/04 Time: 1055
Level: (low/med)	Date Received: 03/06/04
% Moisture: not dec.	Date Extracted: マンダー
GC Column: DB-5MS-30M ID: .25	(mm) Date Analyzed: 03/19/04 Time: 1323
	( µL ) Dilution Factor: 1 Analyst: RLW
Injection Volume: 1.0	Dana Mathada
GPC Cleanup: (Y/N) N pH:	Analytical Method: SW-846 8270C
	Instrument ID: MSSV2
Number TICs Found: 3	
CONCENTRATION UNITS:	
CAS NO. COMPOUND	RT EST. CONC. Q
1. Unknown	4.364 3.38
2. Unknown	4.625 10.5
3 . 4291-79-6   Cyclohexane, 1-methyl-2-propyl	4,862 13.5

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#### SEMPLODIATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: GO	CAL	Sample Dr	SKSWD030	1009	
Lab Code: LA	024 Case No.:	Contract			
SAS No.:	SDG No : 204030804	Lat Fie D	2040319/54	998	
Matrix: Water		Lat Sample II	D: <b>204030</b>	80402	
Sample wt/vol:	1000 Units mL	Date Collecter	d: 03/02/0	Time:	1118
Level: (low/med)		Date Received	d: 03/06/0	(	
% Moisture:	cecanted. (Y/N)	Date Extracted	લ: <mark>ા ક</mark> ો સ્ત્રી	અ	
GC Column: D	B-5MS-30M ID: _25 (mm)	Date 4hatyzed	: 03/19/0	Time	1351
Concentrated Ex	dract Volume. 1900 (µL)	Dilution Factor	r. <u>1</u>	Anal	st RLW
	E 10 (µL)	Prep Method:			
	Y/N) N pHt	Analytica Met	hod: OLM	0 4.2	
		Instrument 'D:	MSSV2		
CONCENTRATI	ON UNITS: 291			Analytical Ba	etch: 271099
CAS NO.	COMPOUND	RESULT	Q	MDL	PQL
95-95-4	2,4,5-Trichlarachenal	10.0	U	0.010	10.0
88-06-2	2,4,6-Trichiorophenol	10.0	U	0.010	10.0
120-83-2	2,4-Dichlorocherol	10.7	Ü	0.010	10.0
51-28-5	2,4-Dinitropheno	25 (	U	0.010	25.0
121-14-2	2.4-Dinitrataiuene	10.0	ن	0,010	10.0
606-20-2	2.6-Dinitrototuene	10.0	U	0.010	10.0
91-58-7	2-Chloronaph traiene	10.0	U	0.010	10.0
95-57-8	2-Chlorophenoi	10.0	U	0.010	10.0
91-57-€	2-Methylnaph maiene	10.0	Ü	0.010	10.0
88-74-4	2-Nitroaniire	25	U	0.010	25.0
88-75-5	2-Nitrophero	10.0	U	0.010	10.0
91-94-1	3.3'-Dichloroperzidine	18 :	<del>                                     </del>	0.010	10.0
99-09-2	3-Nitroanière	25 :	U	0.010	25.0
534-52-1	2-Methyl-4,5-3 naropheno:	25 :	<del>- </del>	0.010	25.0
59-50-7	4-Chloro-3-me:hysphenol	10.1	<del>-</del>	0.010	10.0
106-47-8	4-Chloroaniirne	10.0	<del>- u</del>	0.010	10.0
7005-72-3	4-Chloropher ,I-chenylether	15.5	U	0.010	10.0
106-44-5	4-Methylphenoi p-Cresoi)	12.2	<del>-</del>	0.010	10.0
83-32-9	Acenaphthene	10.0	Ü	0.010	10.0
208-96-8	Acenaphthylene	10.0	υ	0.010	10.0
120-12-7	Anthracene	10.0	U	0.010	10.0
56-55-3	Benzo(a)antiracene	12.0	<del></del>	0.010	10.0
50-32-8	Benzo(a)pyrene	10.0	IJ	0.010	10.0
205-99-2	Benzo(b)fluorantrene	10.0	U	0.010	10.0
191-24-2	Benzo(g,h,:pery:ene		U	0.010	10.0
207-08-9	Benzo(k)fluoranthene	111	U	0.010	10.0
111-91-1	Bis(2-Chloroethaxy)methane	10.0	U	0.010	10.0
111-44-4	Bis(2-Chloroeth / lether	10.0	U	0.010	10.0
108-60-1		***			
117-81-7	bis(2-Chiora sopropy)lether		U U	0.010	10.0
1 1 / -0 1 - /	bis(2-ethylhes) conthalate	<u>:</u> :::	U	0.010	10.0

# 18 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: G	CAL		Sample ID:	SKSWD03D	1009		
Lab Code: LA	024 Case No.:		Contract:				
SAS No.:	SDG No.: 204	030804	Lab File ID:	2040319/\$4	998	·	
Matrix: Water			Lab Sample I	D: <u>2040308</u>	30402		
Sample wt/vol:	1000 Units: mL		Date Collected	d: 03/02/04	Time:	1118	
Level: (low/med)	)		Date Received	d: 03/06/04	ļ		_
% Moisture:	decanted: (Y/N)		Date Extracted	d: <u>- 718</u>	loy		
GC Column: D	B-5MS-30M ID: .25	(mm)	Date Analyzed	f: <u>03/19/04</u>	Time	: 1351	
Concentrated Ex	xtract Volume: 1000	(µL)	Dilution Factor	r: <u>1</u>	Analy	/st: RLW	
Injection Volume	e: 1.0	(µL)	Prep Method:		<del></del>		
GPC Cleanup: (	Y/N) N pH:		Analytical Met	hod: OLM	0 4.2		
			Instrument ID:	MSSV2			_
CONCENTRATI	ION UNITS: ug/L		Prep Batch:	270522	Analytical Ba	itch: 271099	
CAS NO.	COMPOUND		RESULT	Q	MDL	PQL	
101-55-3	4-Bromophenyl-phenylether		10.0	U	0.010	10.0	$\neg$
85-68-7	Butylbenzylphthalate		10.0	U	0.010	10.0	7
86-74-8	Carbazole		10.0	U	0.010	10.0	7
218-01-9	Chrysene		10.0	U	0.010	10.0	ヿ
84-74-2	Di-n-butylphthalate		10.0	U	0.010	10.0	┪
117-84-0	Di-n-octylphthalate		10.0	U	0.010	10.0	┪
53-70-3	Dibenz(a,h)anthracene		10.0	U	0.010	10.0	
132-64-9	Dibenzofuran		10.0	U	0.010	10.0	7
84-66-2	Diethylphthalate		10.0	U	0.010	10.0	7
131-11-3	Dimethyl-phthalate		10.0	U	0.010	10.0	┨
105-67-9	2,4-Dimethylphenol		10.0	U	0.010	10.0	ᅱ
206-44-0	Fluoranthene		10.0	U	0.010	10.0	┪
86-73-7	Fluorene		10.0	U	0.010	10.0	7
118-74-1	Hexachlorobenzene		10.0	U	0.010	10.0	┥
87-68-3	Hexachlorobutadiene		10.0	U	0.010	10.0	ヿ
77-47-4 、	Hexachlorocyclopentadiene		10.0	U	0.010	10.0	7
67-72-1	Hexachloroethane		10.0	υ	0.010	10.0	7
193-39-5	Indeno(1,2,3-cd)pyrene		10.0	U	0.010	10.0	╗
78-59-1	Isophorone		10.0	u	0.010	10.0	╗ .
91-20-3	Naphthalene		10.0	U	0.010	10.0	่ ีนว
100-01-6	4-Nitroaniline		25.0	U	0.010	25.0	7 ''
98-95-3	Nitrobenzene		10.0	U	0.010	10.0	7
100-02-7	4-Nitrophenol		25.0	U	0.010	25.0	7
87-86-5	Pentachiorophenol		25.0	U	0.010	25.0	7
85-01-8	Phenanthrene		10.0	U	0.010	10.0	ヿ
108-95-2	Phenol		10.0	U	0.010	10.0	7
129-00-0	Pyrene		10.0	U	0.010	10.0	ヿ
621-64-7	N-Nitroso-di-n-propylamine		10.0	Ü	0.010	10.0	7
86-30-6	N-Nitrosodiphenylamine		10.0	Ü	0.010	10.0	┪
95-48-7	o-Cresol	·	10.0	U	0.010	10.0	┪

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# SEMINOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY (DENTIFIED COMPOUNDS

Lab Name: GCAL	<del></del>	Sample 13 SKSW30331009		<del> </del>
Lab Code: LA024 2 Case No.:		Contract		
SAS No.: SDG No.: 2045	30804	Lab File D 2040319/S4998		
Matrix Water		Lat Sample ID: 20403080403	<u> </u>	
Sample wt/vol: Driss		Date Collected: 03/02/04	Time: _	1118
Level: (low/med)		Date Received: 03/06/04		
% Moisture: not dec.		Date Extracted: 31 8154		
GC Column: DB-5MS-30M :D: .25	(mm)	Date Analyzed: 03/19/04	Time: _	1351
Concentrated Extract Volume: 1000		Dilution Factor 1	Analyst:	RLW
Injection Volume: 1 C	{	Prep Method:		
GPC Cleanup: (Y/N) N pH		Analytica Method: SW-846 8	270C	
		Instrument Dr. MSSV2		- <del></del>
Number TICs Found: 3			•	
CONCENTRATION UNITS				
CAS NO. COMPOUND		RT EST.	CONC.	Q
1. Unknown		4 36 3 <b>3.</b>	17	
2. Unknown		4 623 9.	62	
3 49622-18-6 Decane, 3.3 4-tri=etrivi-		4.573	6	

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#### 1B SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: GC	CAL		Sample ID: SKSWDEB1009			
Lab Code: LAC	024 Case No.:		Contract:			
SAS No.:	SDG No.: 204030	804	Lab File ID:	2040319/85	001	··
Matrix: Water			Lab Sample II	2040308	30406	
Sample wt/vol:	1000 Units: mL		Date Collected	l: <u>03/02/04</u>	Time:	1240
Level: (low/med)			Date Received	: 03/06/04	J	
% Moisture:	decanted: (Y/N)	<del></del>	Date Extracted	: <u>318</u>	134	
GC Column: DI	B-5MS-30M ID: .25	(mm)	Date Analyzed	: 03/19/04	Time:	1513
Concentrated Ex	tract Volume: 1000	( µL )	Dilution Factor	: 1	Analy	st: RLW
Injection Volume	:1.0	( µL )	Prep Method:			
GPC Cleanup: (1	Y/N) N pH:		Analytical Met	nod: OLM	0 4.2	
			Instrument ID:	MSSV2		
CONCENTRATI	ON UNITS: ug/L		Prep Batch:	270522	Analytical Ba	tch: 271099
CAS NO.	COMPOUND		RESULT	Q	MDL	PQL
95-95-4	2,4,5-Trichlorophenol		10.0	U	0.010	10.0
88-06-2	2,4,6-Trichlorophenol		10.0	U	0.010	10.0
120-83-2	2,4-Dichlorophenol		10.0	U	0.010	10.0
51-28-5	2,4-Dinitrophenol		25.0	U	0.010	25.0
121-14-2	2,4-Dinitrotoluene		10.0	U	0.010	10.0
606-20-2	2,6-Dinitrotoluene		10.0	U	0.010	10.0
91-58-7	2-Chloronaphthalene		10.0	U	0.010	10.0
95-57-8	2-Chlorophenol		10.0	U	0.010	10.0
91-57-6	2-Methylnaphthalene		10.0	U	0.010	10.0
£8-74-4	2-Nitroaniline		25.0	U	0.010	25.0
88-75-5	2-Nitrophenol		10.0	U	0.010	10.0
91-94-1	3,3'-Dichlorobenzidine		10.0	U	0.010	10.0
99-09-2	3-Nitroaniline		25.0	U	0.010	25.0
534-52-1	2-Methyl-4,6-dinitrophenol	-	25.0	Ú.	0.010	25.0
59-50-7	4-Chloro-3-methylphenol		10.0	U	0.010	10.0
106-47-8	4-Chloroaniline		10.0	Ü	0.010	10.0
7005-72-3	4-Chlorophenyl-phenylether		10.0	Ü	0.010	10.0
106-44-5	4-Methylphenol (p-Cresol)		10.0	Ü	0.010	10.0
83-32-9	Acenaphthene		10.0	U	0.010	10.0
208-96-8	Acenaphthylene		10.0	U ·	0.010	10.0
120-12-7	Anthracene		10.0	U	0.010	10.0
56-55-3	Benzo(a)anthracene		10.0	U	0.010	10.0
50-32-8	Benzo(a)pyrene		10.0	U	0.010	10.0
205-99-2	Benzo(b)fluoranthene		10.0	U	0.010	10.0
191-24-2	Benzo(g,h,i)perylene		10.0	U	0.010	10.0
207-08-9	Benzo(k)fluoranthene		10.0	U	0.010	10.0
111-91-1	Bis(2-Chloroethoxy)methane		10.0	Ü	0.010	10.0
111-44-4	Bis(2-Chloroethyl)ether		10.0	U	0.010	10.0
108-60-1	bis(2-Chloroisopropyl)ether		10.0	U	0.010	10.0
117-81-7	bis(2-ethylhexyl)phthalate		10.0	U	0.010	10.0
	<del></del>		<del></del>			

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### SEMNOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL	Sample D: S	KSWDEB1	009		
Lab Code: LA024 Case No.:	Contract				_
SAS No.: SDG No.: 254030804	Lab File ID: 2	040319/\$50	01		
Matrix Water	Lab Sample ID	2040308	0406		
Sample wit/volt 1000 Units mL	Date Collected	03/02/04	Time:	1240	_
Levet: (low/med)	Date Received	03/06/04			_
% Moisture: decarted: (Y/N)	Date Extracted	: 3/8/0	<b>.</b>		_
GC Column: DB-5MS-30M ID: .25 (mm	n) Date Analyzed	03/19/04	Time:	1513	_
Concentrated Extract Volume: 1000 (pt.	Dilution Factor	1	Analy	st: RLW	
Injection Volume: 1.0 { pt	Prep Method				
GPC Cleanup: (Y/N) N pH:	Analytical Meth	od: OLMC	4.2		
	— Instrument ID:	MSSV2			
CONCENTRATION UNITS: up.'.	Prep Batch:		Analytical Ba	tch: 271099	
CAS NO. COMPOUND	RESULT	Q	MDL	PQL	
101-55-3 4-Bromophenyl-phenylether	10.0	Ū	0.010	10.0	7
85-68-7 Butylbenzylphthalate	10.0	U	0.010	10.0	┪
86-74-8 Carbazole	3.03	Ü	0.010	10.0	┨
218-01-9 Chrysene	10.0	U	0.010	10.0	┥
84-74-2 Di-n-buty/phthala:e	15.5	i ii	0.010	10.0	┥
117-84-0 Di-n-octylphthalate	10.0	l i	0.010	10.0	$\dashv$
53-70-3 Dibenz(a,hianthracene	12.5	<u> </u>	0.010	10.0	-
132-64-9 Dibenzofura:	15 5	ار	0.010	10.0	┥
84-66-2 Diethylphthakare	10.0	U U	0.010	10.0	
131-11-3 Dimethyl-phthalate	10 0	Ü	0.010	10.0	-
105-67-9 2,4-Dimethylcherol	10.0	Ü	0.010	10.0	$\neg$
206-44-0 Fluoranthene	10.5	<del>- U</del>	0.010	10.0	{
86-73-7 Fluorene		<del>- บ</del>	0.010	10.0	$\dashv$
118-74-1 Hexachlorobercane	30.	<del>- U</del>	0.010	10.0	
87-68-3 Hexachiorobutad ene	.0:	<del>- U</del>	0.010	10.0	-
<del></del>	10.0	U	0.010	10.0	
<del></del>	:0:	<del>- U</del>	0.010	10.0	-
	10.0	<del></del>		10.0	
193-39-5 Indeno(1,2,3-cd/p,rene 78-59-1 Isophorone	100	<u>u</u>	0.010	10.0	-
	<del></del>				u?
	19.0 25.0	U	0.010	10.0 25.0	۱۳,
<del></del>	10.0	U	0.010		
98-95-3 Nitrobenzene		U	0.010	10.0	4
100-02-7 4-Nitrophena	25 :	U	0.010	25.0	-
87-86-5 Pentachloropheno	25 :	<u>υ</u>	0.010	25.0	
85-01-8 Phenanthrene	12.0	<u> </u>	0.010	10.0	-
108-95-2 Phenol	•::	. บ .	0.010	10.0	-
129-00-0 Pyrene	*\$ \$	U	0.010	10.0	_
621-64-7 N-Nitroso-di-n-orda /tamine	.;;	U	0.010	10.0	_
86-30-6 N-Nitrosodipher / amine	10.0	U	0.010	10.0	_
95-48-7 o-Cresol	•5.5	IJ	0.010	10.0	:

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#### 1F SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:	GCAL		Sample ID: SKSWDEB1009			
Lab Code:	LA024 2 Case No.:		Contract:			
SAS No.:	SDG No.: 2040	30804	Lab File ID: 204	40319/S5001		
Matrix: Wa	ater		Lab Sample ID:	20403080406		
Sample wt/v	ol: Units:		Date Collected:	03/02/04	Time: 1240	
Level: (low/n	ned)		Date Received:	03/06/04		
% Moisture:			Date Extracted:	318/04		
GC Column:	DB-5MS-30M ID: .25	(mm)	Date Analyzed:	03/19/04	Time: 1513	
	d Extract Volume: 1000	— ' ΄ (μL)	Dilution Factor:	1	Analyst: RLW	
Injection Vol	ume: 1.0	<del></del> ·· ·	Prep Method: _			
GPC Cleanu	p: (Y/N) N pH:		Analytical Method	d: SW-846 8270C	·	
			Instrument ID: N	MSSV2		
Number	ŢICs Found: 3		_		· · · · · · · · · · · · · · · · · · ·	
CONCE	NTRATION UNITS:					
CAS N	O. COMPOUND		RT	EST. CONC	c. Q	
1.	Unknown	······································	4.366	3.57		
2.	Unknown	<del></del>	4.627	10.3		
3 49622-1	8-6 Decane, 3.3.4-trimethyl-	·	4.864	12		

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### CRIGANIOS ANALYSIS DATA SHEET

Lab Name: GCAL	Sample ID: S	KSWD03100	9 _		
Lab Code: LA024 Case No.:	Contract:				
Matrix Water	SAS No.1		SDG No.:	294030604	
Sample w//volt 1000 Units mL	Lat Sample ID:	204030804	01		
Level: (low/med)	Date Collected:	03/02/04	Time:	1055	
% Moisture: decanted (Y/N)	Date Received:	03/06/04			
		<del></del>	<u> </u>		<del>-</del> .
GC Column: DB-608-30M :D: .53 (mm					_5/15
Concentrated Extract Volume. 1000 (µL	.) Date Analyzed:	03/31/04	Time:	0540	
Soil Aliquot Volume: ( pt	.) Deution Factors	1	Analys	st_TLS	
Injection Volume: 1					_
GPC Cleanup: (Y/N) N pH:					
Prep Batch: 270511 Analytical Batch 271554				ID: GCS6A	
CONCENTRATION UNITS. up/L	Lat File (Cr				
CAS NO. COMPOUND	RESULT	Q	MDL	RL	
72-54-8 4,4'-DDD	0.100	U	0.00010	0.100	7
72-55-9 4,4'-DDE	0.100	U	0.00010	0.100	
50-29-3 4,4'-DDT	0.100	υ	0.00010	0.100	7
309-00-2 Aldrin	0.050	U	0.00010	C.050	$\neg$
12674-11-2 Arocior-1016	. D0	Ü	0.00010	1.00	
11104-28-2 Aroclor-1221	2 00	U	0.00010	2.00	<u> </u>
11141-16-5 Aroclor-1232	* 00	Ü	0.00010	1.00	
53469-21-9 Aroctor-1242	1 00	U	0.00010	1.00	
12672-29-6 Aroctor-1248	• 00	U	0.00010	1.00	_
11097-69-1 Aroclor-1254	1.00	U	0.00010	1.00	
11096-82-5 Aroclor-1260	1.56	U	0.00010	1.00	
60-57-1 Deldrin	0 150	IJ.	0.00010	0.100	
959-98-8 Endosulfan I	0.050	Ú	0.00010	0.050	_
33213-65-9 Endosulfan II	0.100	Ų	0.00010	0.100	_
1031-07-8 Endosulfan sulfate	0.100	IJ	0.00010	0.100	
72-20-8 Endrin	0.00	IJ	0.00010	0.100	
7421-93-4 Endrin aldehyde	5.31	U	0.00010	0.100	
53494-70-5 Endrin ketone	2 -0:	U	0.00010	0.100	
76-44-8 Heptachlor	7.5	U	0.00010	0.050	_
1024-57-3 Heptachlor epoxide	1 150	U	0.00010	0.050	_
72-43-5 Methoxychior	2.500	U	0.00010	0.500	$\neg$
8001-35-2 Toxaphene	5.00	J	0.00010	5.00	_
319-84-6 alpha-BHC	0.060	IJ	0.00010	0.050	<del>_</del>
5103-71-9 alpha-Chlordane	2 750		0.00010	0.050	
319-85-7 beta-BHC	2.757	<del>-</del>	0.00010	0.050	_
319-86-8 delta-BHC	2 353	U	0.00010	0.050	_
58-89-9 gamma-BHC (Lindare	0.050		0.00010	0.050	_
5103-74-2 gamma_Chiordage	2 227	- 1	0.00010	0.050	

# 1D ORGANICS ANALYSIS DATA SHEET '

Lab Name: GCA	AL	Sample ID: SI	KSWD03D10	009		
Lab Code: LA02	24 Case No.:	Contract:				
Matrix: Water		SAS No.:			204030804	
Sample wt/vol:	1000 Units: mL	Lab Sample ID:	20403080	402		
		·			4440	
				Time:	1116	<del></del>
% Moisture:	decanted: (Y/N)	Date Received:	03/06/04			<del></del>
GC Column: DB	8-608-30M ID: .53 (mm)	Date Extracted:	3/8	10:न		_shalo
	ract Volume: 1000 (µL)	Date Analyzed:	03/31/04	Time:	0608	
Soil Aliquot Volum	ne: (µL)	Dilution Factor:	1	Analys	t: TLS	_
	1 (µL)	Prep Method:		<del></del>		
	/N) N pH:	Analytical Metho		4.2		- <del></del>
	0511 Analytical Batch: 271554			Instrument I	D: GCS6A	
CONCENTRATION	N UNITS: vg/L	Lab File ID:	2040330	J/5V6U24		
CAS NO. CO	OMPOUND	RESULT	Q	MDL	RL	
72-54-8 4,4'-	-DDD	0.100	U	0.00010	0.100	$\neg$
72-55-9 4,4'-	-DDE	0.100	U	0.00010	0.100	
50-29-3 4,4'-	DDT	0.100	Ü	0.00010	0.100	
309-00-2 Aldri	in	0.050	U	0.00010	0.050	_
12674-11-2 Aroc	clor-1016	1.00	U	0.00010	1.00	
11104-28-2 Aroc		2.00	- U	0.00010	2.00	_
11141-16-5 Aroc		1.00	<del>- i -  </del>	0.00010	1.00	-
53469-21-9 Aroc		1.00	<del></del>	0.00010	1.00	_
12672-29-6 Aroc		1.00	<del>- i -</del>	0.00010	1.00	⊣
11097-69-1 Aroc		1.00	<del>- i - l</del>	0.00010	1.00	
11096-82-5 Aroc		1.00	<del>- i -  </del>	0.00010	1.00	$\dashv$
60-57-1 Dield	· <del>······························</del>	0.100	<del>u</del> l	0.00010	0.100	
}	osulfan I	0.050	<del>U</del>	0.00010	0.050	
	osulfan II	0.100	<del>- u</del>	0.00010	0.100	⊣
<del> </del>	osulfan sulfate	0.100	<del>-</del>	0.00010	0.100	
72-20-8 Endri	·····	0.100	<del>- i -  </del>	0.00010	0.100	
	rin aldehyde	0.100	<del>- </del>	0.00010	0.100	
53494-70-5 Endri		0.100	<del>U</del>	0.00010	0.100	{
	tachlor	0.050	<del></del>	0.00010	0.050	-
	tachlor epoxide	0.050	<del>- 0</del>	0.00010	0.050	
	noxychlor	0.500	<del></del>	0.00010	0.500	-
	aphene	5.00	0			-
	a-BHC	0.050	U	0.00010	5.00	
	<del></del>			0.00010	0.050	
	a-Chlordane	0.050	U	0.00010	0.050	
	-BHC	0.050	U	0.00010	0.050	
	n-BHC	0.050	U	0.00010	0.050	_
	ma-BHC (Lindane)	0.050	U	0.00010	0.050	_
5103-74-2 gamr	ma-Chlordane .	0.050	u l	0.00010	0.050	1

# ORGANIOS ANALIS SIDATA SHEET

Lab Name: GCAL	Sample ID:	SKS.VDEB10	09		
Lab Code: LA024 Case No.:					
Matrix: Water	_		SDG No.:	204030804	_
Sample without 1000 Units int.	Lac Sample I	: <b>2040308</b> 0	406		
Level: (low/med)	Date Collected	: 03/02/04	Time:	1240	
% Moisture: decanted: (Y/N)		: 03/06/04			
	<del></del>				
GC Column: <u>DB-608-30M</u> iD: .53 (m	m, date extracted	: <u>3141</u>	<u>ું</u>		SÍ:
Concentrated Extract Volume: 1000 (	L : Date Analyzed	03/31/04	Time:	0733	_
Soit Aliquot Volume: ( u	L : Dilution Factor	<del>.</del> 1	Analys	t TLS	
					_
Injection Volume: 1 ( ::				<del></del>	_
GPC Cleanup: (Y/N) N pH:	Analytica Met	hod: OLMO	4.2	<del></del>	
Prep Batch: 270511 Analytical Batch: 271554	Sufur Cleanus	(Y/N) N	Instrument I	D: GCS6A	_
CONCENTRATION UNITS: ug:L	Lat File (D				
DONGENTRATION DIVIS. 69.2					
CAS NO. COMPOUND	RESULT	Q	MDL	RL	
72-54-8 4.4'-000	0.100	<u>. U</u>	0.00010	0.100	$\neg$
72-55-9 4,4'-DDE	3.108	U	0.00010	0.100	┪
50-29-3 4,4'-DOT	0.100	υ U	0.00010	0.100	_
309-00-2 Aldinin	0.050	U	0.00010	0.050	_
12674-11-2 Arocior-1016	1.55	U	0.00010	1.00	7
11104-28-2 Aroctor-1221	2.00	U	0.00C10	2.00	_
11141-16-5 Aroclor-1232	1 00	Ü	0.00010	1.00	
53469-21-9 Aroctor-1242	1.07	Ü	0.00010	1.00	_
12672-29-6 Aroclor-1248	0:	U	0.00010	1.00	7
11097-69-1 Aroclor-1254	• <b>3</b> ĉ	U	0.00010	1.00	_
11096-82-5 Aroctor-1260	.0:	Ü	0.00010	1.00	
60-57-1 Dieldrin	5,100	U	0.00010	0.100	┪
959-98-8 Endosullan I	0.050	U	0.00010	0.050	7
33213-65-9 Endosulfan II	0.00	U	0.00010	0.100	_
1031-07-8 Endosufan suffate	2 - 52	U	0.00010	0.100	7
72-20-8 Endors	0.100	U	0.00010	0.100	7
7421-93-4 Endrin aldehyde	2 • 00	J	0.00010	0.100	7
53494-70-5 Endrin ketone	<del></del>	U	0.00010	0.100	⊣
75-44-8 Heptachior	0.050	<del>                                     </del>	0.00010	0.050	_
1024-57-3 Heptachior epoxice	0.050	U	0.00010	0.050	7
72-43-5 Methoxychlor	0.500	U	0.00010	0.500	7
8001-35-2 Toxaphene	5 30	ע	0.00010	5.00	
319-84-6 alpha-BHC	0.050	<del>-</del>	0.00010	0.050	-
5103-71-9 alpha-Chlordane	0.050	U U	0.00010	0.050	$\dashv$
319-85-7 beta-BHC	0.750	U	0.00010	0.050	$\dashv$
319-86-8 delta-BHC	2 050	U	0.00010	0.050	
58-89-9 gamma-BHC (Lincate	1 050	IJ	0.00010	0.050	-
5103-74-2 gamma-Chlordane	2.052	<del>- ŭ</del>	0.00010	0.050	
, j <del>=</del>					1

#### U.S. EPA - CLP

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#### EPA SAMPLE NO.

INORGANIC	ANALYSIS	DATA	SHEET
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SKSWD031009
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Lab Name: G	CAL	Conti	act:			
Lab Code: LA	024 Case No.:	SAS	No.:	SDG	No.: 2040308	04
Matrix: ( soil / wa	iter) Water	Lab Sar	nple ID: _20403	3080401		
Level: ( low / med	d)	Date Ro	eceived: 03/06	/04		
% Solids:			-			
Concentration L	Jnits (ug/L, or mg/kg dry weight	): ug/L	-			
CAS No.	Analyte	Concentration	С	Q	М	

CAS No.	Analyte	Concentration	С	Q	M	7
7440-36-0	Antimony	5.2	В	<del></del>	P	1
7440-38-2	Arsenic	2.9	U		Р	1
7440-39-3	Barium	40.0	В		Р	7
7440-41-7	Beryllium	0.2	В	. ,	Р	1
7440-43-9	Cadmium	0.2	U		Р	7
7440-47-3	Chromium	1.4	В		Р	7
7440-50-8	Copper	11.0	В		P	7:
7439-89-6	Iron	2200			P	1
7439-92-1	Lead	1.5	U		Р	7
7439-97-6	Mercury	0.1	Ú		ÄV	7
7440-02-0	Nickel	2.5	В		P	7
7782-49-2	Selenium	4.4	U	N	P	٦,
7440-22-4	Silver	0.4	U		Р	7
7440-28-0	Thallium	2.6	υ		P	7
7440-66-6	Zinc	14.6	В		P	٦
57-12-5	Cyanide	0.8	В		AS	7

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Color Before:	COLORLESS	Clarity Before:	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After:	CLEAR	Artifacts;	
Comments:					

### US EP# - CLP

EPA SAMPLE NO.

INORGANIC	ANALYS'S	DITE	SHEET
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	SKSWD03D1009	ľ

					SKSWLK	301009
Lab Name:	GCAL		Contract:	<del></del>		
Lab Code:	LA024	Case No.:	SAS No.	<del></del>	SDG No.:	204030804
Matric ( soil	/ water )	Water	Lat Sample ID	20403080402		
Level: (low/	med)_		Date Received:	03/06/04		
% Solids:						

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	3.7	L		Р
7440-38-2	Arsenic	5.3	В		Р
7440-35-3	Barium	39.1	В		Р
7440-41-7	Beryllium	0.2	В		Р
7440-43-9	Cadmium	0,2	L		P
7440-47-3	Chromium	1.3	E		Р
7440-50-8	Copper	4.5	В		P
7439-89-6	iron	2220			Р
7439-92-1	Lead	1.5	L	~ <del></del>	P
7439-97-6	Mercury	C.1	Ü		VA
7440-02-0	Nickel	2.8	Б		Р
7782 <del>-49</del> -2	Selenium	44	Ų	N	Р
7440-22-4	Silver	0.4	L'		Р
7440-28-0	Thellium	26	L		Р
7440-65-6	Zinc	7.2	B		P
57-12-5	Cyanide	25	В		AS

5 /1+1-4 msin

Calar Before:	COLORLESS	Clarity Before	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After:	CLEAR	Artifacts:	
Comments:					

### U.S. EPA - CLP

1

#### EPA SAMPLE NO.

INORGANIC	ANAL VOIC	DATA	CHEET
INURGANIC	ANALYSIS	DAIA	SHEEL

SKS\	۸/۲	<b>⊏</b> ₽1	വര

	·			SKS	WDEB1009	9
Lab Name: G	CAL	Contr	act:			
Lab Code: LA	024 Case No.:	SASI	No.:`	SDG 1	No.: 2040	30804
Matrix: ( soil / wa	ater) Water	Lab San	πpie ID: 204030	180406		
Level: ( low / me	d)			······································		
	<u> </u>	Date Re	eceived: 03/06/0	04		
% Solids:						
Concentration (	Jnits (ug/L or mg/kg dry weight)	); ug/L			,	
CAS No.	Analyte	Concentration	С	Q	М	7
7440-36-0	Antimony	3.7	U		Р	1
7440-38-2	Arsenic	2.9	U		P	1
7440-39-3	Barium	0.3	U		Р	1
7440-41-7	Beryllium	0.1	U		Р	1
440-43-9	Cadmium	0.2	Ü		Р	1
440-47-3	Chromium	0.8	U		Р	1
7440-50-8	Copper	3.5	В		Р	17
439-89-6	Iron	14.1	U		Р	1
7439-92-1	Lead	1.5	U		Р	1
7439-97-6	Mercury	0.1	U		AV	1
7440-02-0	Nickel	0.7	U		Р	1
7782-49-2	Selenium	4.4	U	N	Р	R
7440-22-4	Silver	0.4	U		Р	7
	Thallium	2.6	U		Р	7
<del></del>	i namum	2.0				
7440-28-0 7440-66-6	Zinc	3.7	В		P	]

Color Before:	COLORLESS	Clarity Before:	CLEAR	Texture:	***************************************
Color After:	COLORLESS	Clarity After:	CLEAR	Artifacts:	
Comments:					

US EP4 - CLP

EPA SAMPLE NO.

INORGANIC	AMALYS	S DAT4	SHEET

SKSWD031009 (DISS)

Lab Name:	GCAL		Contra	ct				
Lab Code:	LA024	Case No.:	\$45 N	o.:	<del></del>	SDG No.:	204030804	
Matric ( soil	/water)	Water	Lat Sam	ple IC:	20403080408			
Level: (low/	med) _		Date Re:	bevied	03/06/04			
% Solids:								

Concentration Units (ug/L or mg/kg dry weight): ug1.

CAS No.	Analyte	Concentration	Ξ Τ	Q	M	7
7440-36-0	Antimony	3.7	L	<del></del>	Р	1
7440-38-2	Arsenic	5.3	В		P	7
7440-39-3	Barium	29 8	В		P	7
7440-41-7	Beryllium	0.2	В		Р	7
7440-43-9	Cadmium	02	-		P	٦
7440-47-3	Chromium	0.8	L		Р	
7440-50-8	Copper	4.6	5		P	7
7439-89-6	Iron	17.2	5		Р	7
7439-92-1	Lead	1.5	ti		Ρ	7
7439-97-6	Mercury	0.1	ن		AV	
7440-02-0	Nickel	1,4	Б		Р	1
7782-49-2	Selenium	44	Ļ	N	Ρ	一火山
7440-22-4	Silver	0.4	Ü		Р	_
7440-28-0	Thelium	2€	L.		Р	٦
7440-66-6	Zinc	C 6			P	7

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Color Before:	COLORLESS	Clarity Before	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After	CLEAR	Artifacts:	

Comments:

### U.S. EPA - CLP

## EPA SAMPLE NO.

INORGANIC	ANALYSIS	DATA	SHEET

SKSWD03D1009 (DISS)

		]			
Lab Name: GCAL	Contract:	·			
Lab Code: LA024 Case No.:	SAS No.:		SDG No.:	204030804	
Matrix: ( soil / water ) Water	Lab Sample ID:	20403080409			
Level: ( low / med )	Date Received:	03/06/04			
% Solids:					

Concentration Units (ug/L or mg/kg dry weight):

CAS No.	Analyte	Concentration	С	Q	M
7440-36-0	Antimony	3.7	Ü		P
7440-38-2	Arsenic	4.1	В		P
7440-39-3	Barium	29.8	В		P
7440-41-7	Beryllium	0.1	В		Р
7440-43-9	Cadmium	0.2	U		Р
7440-47-3	Chromium	0.8	U		P
7440-50-8	Copper	1.2	U		P
7439-89-6	Iron	27.7	В		Р
7439-92-1	Lead	1.5	U		P
7439-97-6	Mercury	0.1	U		AV
7440-02-0	Nickel	1.3	В		P
7782-49-2	Selenium	4.4	U	N	P
7440-22-4	Silver	0.4	U	· · · · · · · · · · · · · · · · · · ·	Р
7440-28-0	Thallium	2.6	U		P
7440-66-6	Zinc	0.6	U	······································	Р

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Color Before:	COLORLESS	Clarity Before:	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After:	CLEAR	Artifacts:	

Comments:

US EF4 - CLP

EPA SAMPLE NO.

INCREANIC	ALA.	'S S	DATA	SHEET
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SKSWDEB1009(DISS)

							- 1
Lab Name:	GCAL	·	Contract				
Lab Code:	LA024	Case No.:	SAS No.:	<del></del>	SDG No.:	204030804	
Matric ( soil	/water)	Water	Lab Sample ID	20403080412			
Levet (low/	med)		Date Received:	03/06/04			
% Solids:							

Concentration Units (ug/L or mg/kg sty weight): ug/L

CAS No.	Analyte	Concentration	2	Q	М	
7440-36-0	Antimony	3.7	U		Р	7
7440-38-2	Arsenic	2.9	Ü		Р	7
7440-39-3	8arium	0.3	Ü		Р	7
7440-41-7	Beryffum	0.1	U		Р	7
7440-43-9	Cadmium	C.2	U.		Р	7
7440-47-3	Chromium	0.8	L.		P	7
7440-50-8	Copper	1.2	Ü		Р	7
7439-89-6	iron	22.5	9		P	7
7439-92-1	Leed	1.5	j		P	7
7439-97-6	Mercury	0.1	Ų.		AV	7
7440-02-0	Nickel	1.5	В		Р	7
7782-49-2	Selenium	4.4	i	N	P	×
7440-22-4	Silver	04	U		Р	7
7440-28-0	Theffurn	2.6	L		Р	7
7440-66-6	Zinc	3.9	8		ρ	7

Color Before:	COLORLESS	Clarity Before	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After	CLEAR	Artifacts:	

Comments:

GULF COAST ANALYTICAL LABORATORIES, INC
7979 GSRI AVenue, Baton Rouge, Louisiana 70820-7402
Phone 225.769.4900 • Fax 225.767.5717

Chain of Cust Y Record

4342

204030804

3/19/04

Client Name

Client #

Workorder a

Due Date

		ent Name						Cile							<del></del>
Report to: Bill to:			Analytical Requests & Method					Meth	od	Lab use only:					
Client: Eurth Tech	Client: Earth Tech Client:												Custody Seal		
Address: 200 Vine Street A	dress: 200 Vine Street Address:			1	1		1	İ			1		1 1	used Dyes Ino	
Contact: Pat Howas Contact: (5000)				,	!								in tact [7] yes □ no	,	
	Contact: 5				I		İ							Temperature °C	
Phone: 859 - 442 - 2300	Phone:					İ			4			.			
Fax: 859-442-2311	Fax:				. 3	1	}		17				1		
P.O. Number Project Name/Number				1	7	· 为	i	7	Ž						
S4280 Skine Lundfill	- 1 Qtr. 2004				7	4	1	કુ	3	3					
Sampled By:				-9	7	Ŀ	,~		7	1					
Pat Higgins / Chris Cox				4		Pesniides	PCBis	total met	2	3	Ì		}		Lab ID
Matrix <sup>1</sup> Date Time (2400)  Sample Description	_	Preservatives	No Con- tainers	`>`	50	9	م	2	9	7			والح	nemarks:	3/8
W 3/2/04/055 X SLESWDO	31009	ANTIACL	3	X	X	1	A	Jak-	×	جز	7.6	,		Refer to Tuble 7	- /
1 11/8 1 CKSWDO	571009	HCL	3	X	×		X	2	×	مر	P.4		9	(TCL) and Table 8	2
1145 SKS-DO	3MS 1009	1400	7	X									10	(TAL) of frail	3
1200 SLSWDO	MSP 1009	1466	7	X							Mac	1- 4	(1)	O+M plan for de	4-5
R40 SLSWD5	13 1009	Various	10	X	X	X	X	X	X	X			12	list of analyxes.	ا ا
to Trip Blo		HCL	3	X										,	1
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		<del> </del>	<del> </del>				-	-							
					l										
Turn Around Time: 24-48 hrs. 3 days 1 week Standard Other															
Relinquished by: (Signature) Received by: (Signature) Date: , Time: Note:															
Pat Hzjr FeDX															
Relinquished by: (Signature)  FeACX 9/25 9530 7654  Received by: (Signature)  Date: Time: 3-6-04 1030															
Relinquished by: (Signature) Received by: (	Signature) Da		<u> </u>	1		:			.1		<b>.</b>	- 46 - 4		-d	
Dm Thill Cooler 3-6-04 1150 By submitting these samples, you agree to the terms and conditions contained in our most recent schedule of services.															

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	3881 Avenu 3881 Avenu 22: Phone			isiana 7062 5.767 6717
1	_	Rep	ort to:	

236,1111

## CHAIN OF CUST NY RECORD

eur coast Amaytica: Lacoartones, inc 7979 GSRI Avenue, Baton Rouge, Louisiana 70820-7402 Phone 225.769 4900 • Fax 225.767 5717	Earth Tech Client Name	4342 Client #	724 0368 04 5/16/64
	Client: Address: Contact: Phone: Fax:  Af:	Analytical Requests & Metho	Custody Seal used fes no in tact fyes fine Temperature *C
Sampled By:  Path Time Carpino Sample Description  W 3 2/64 1055  W 3/2/64 1118  X SKSWD 01		Volety XXX Sensitive Tology XXX Destriction	Refer to 3/10  Refer to -1  Table 7  (TLL) and  Table 8  (TAL) of  Final Dim  Plan for  list of  analytes
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Belinquished by:

Received by: (Signature)

Cooler

CHAIN OF CUST Y RECORD Lab use only 4342 204030804 7979 GSRI Avenue, Baton Rouge, Louisiana 70820-7402 Phone 225.769.4900 • Fax 225.767.5717 Due Date Client Name Lab use only: Report to: Bill to: Analytical Requests & Method Custody Seal Earth Tech Client: no used Address: Address: Wilder, Kir 41074 Pat Itigyins 2700 Temperature °C Contact: Contact: Phone: Phone: 2311 Fax: P.O. Number Project Name/Number Sampled By: Lab ID No Time Date Matrix<sup>1</sup> Con-Sample Description Preservatives (2400)Remarks tainers CKSUDOJAMS 1009 Various Sh Sw D 03MSD 1004 Various 1204 1208 and 63 M 24-48 hrs. ☐ 3 days Standard ☐ Other Turn Around Time: 1 week Received by: (Signature) Relinquished by: (Signature) Date: Time: Note: FEDX Relinquished by: (Signature) Received by: (Signature) Date: Time: 703C FEREX 0415 9530 7645

y submitting these samples, you agree to the terms and conditions contained in our most recent schedule of services.

PINK: CLIENT CANARY: LABORATORY WHITE: CLIENT FINAL REPORT

#### DATA VALIDATION REPORT

**FOR** 

SKINNER LANDFILL SITE

**EARTH TECH: PROJECT NUMBER 54280** 

**LABORATORY REPORT NUMBER 204031909** 

PROJECT MANAGER: Ron Rolker

Date: May 11, 2004

Revised Report Dated: September 29, 2005

**Data Validator: Mark Kromis** 

#### APPENDIX C LIST OF ACRONYMS

BFB Bromofluorobenzene
CC Continuing Calibration

CCV Continuing Calibration Verification
CCB Continuing Calibration Blanks
CLP Contract Laboratory Program
CRDL Contract Required Detection Limit
DFTPP Decafluorotriphenylphosphine

GC/MS Gas Chromatograph/Mass Spectrometer

IC Initial Calibration
ICB Initial Calibration Blank
IDL Instrument Detection Limit
ICP Inductively Coupled Plasma
ICS Interference Check Sample
ICV Initial Calibration Verification

ILM Inorganic Analysis Multi-Media Multi-Concentration

INDAM Individual A Mixture INDBM Individual B Mixture mg/L milligrams per liter

MS/MSD Matrix Spike/Matrix Spike Duplicate
OLC Organic Analysis Low Concentration

OLM Organic Analysis Multi-Media Multi-Concentration

%D Percent Difference

% RSD Percent Relative Standard Deviation

PB Preparation Blanks
QC Quality Control
RF Response Factor

RPD Relative Percent Difference
RRF Relative Response Factor
SDG Sample Delivery Group
SOW Statement of Work

µg/L micrograms per liter

US EPA United States Environmental Protection Agency

VOC Volatile Organic Compounds VTSR Validated Time of Sample Receipt

# DATA VALIDATION SUMMARY – SAMPLE DELIVERY GROUP 204031909 INORGANICS

Validation of the inorganics data, as prepared by Gulf Coast Analytical Laboratories (GCAL) for the samples collected from the Skinner Landfill site in March 2004, was conducted by Earth Tech using the National Functional Guidelines for Inorganic Data Review, (US EPA, February, 1994), as appropriate. The results were reported by GCAL under Sample Delivery Group (SDG) 204031909.

GCAL#	Sample Description
20403190901	SKGW581009
20403190902	SKGW58DUP1009
20403190903	SKGW631009
20403190904	SKGW611009
20403190905	SKGW61MS1009
20403190907	SKGW61DUP1009
20403190908	SKGWFB1009
20403190910	SKGW581009 (DISS)
20403190911	SKGW58DUP1009 (DISS)
20403190912	SKGW631009 (DISS)
20403190913	SKGW611009 (DISS)
20403190914	SKGW61MS1009 (DISS)
20403190915	SKGW61DUP1009 (DISS)
20403190916	SKGWFB1009 (DISS)
20403220801	SKGW06R1009
20403220802	SKGW07R1009
20403220803	SKGW591009
20403220804	SKGW601009
20403220805	SKGW62A1009
20403220806	SKGW641009
20403220807	SKGW651009
20403220808	SKGW06R1009 (DISS)
20403220809	SKGW07R1009 (DISS)
20403220810	SKGW591009 (DISS)
20403220811	SKGW601009 (DISS)
20403220812	SKGW62A1009 (DISS)
20403220813	SKGW641009 (DISS)

#### INTRODUCTION

Analyses of metals were performed according to Contract Laboratory Program (CLP)-Inorganic Analysis Multi-media Multi-concentration ILM04.1 Statement of Work (SOW). Results of the sample analyses are reported by the laboratory as either qualified or unqualified. Unqualified results mean that the reported values maybe used without reservation. Various qualifier codes are used by the laboratory to denote specific information regarding the analytical results.

The data validation process is intended to evaluate the data on a technical basis. The data package also was subjected to an internal laboratory quality review prior to submission to Earth Tech for data validation.

During the validation process, laboratory-qualified and unqualified data are verified against all available supporting documentation. Based on this evaluation, qualifier codes may be added, deleted or modified by the data user. Final results are therefore, either qualified or unqualified. Validator-qualified results are annotated with the following codes in accordance with the Functional Guidelines:

- U The constituent was analyzed for, but was not detected above the level of the associated analytical reporting limit. The associated value is either the sample quantitation limit or the sample detection limit.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Details of the inorganics data validation findings and conclusions are provided in the following sections of this report:

- 1. Holding Times
- 2. Calibration
  - A. Initial Calibration (IC)
  - B. Continuing Calibration (CC)
- 3. Blanks
- 4. Inductively Coupled Plasma (ICP) Interference Check Sample
- 5. Laboratory Control Sample (LCS)
- 6. Duplicate Analysis

- 7. Spike Sample Analysis
- 8. ICP Serial Dilution
- 9. System Performance
- 10. Documentation
- 11. Overall Assessment

#### 1. HOLDING TIMES

All samples for inorganics analyses were analyzed within the 180-day holding time for preserved aqueous samples. Mercury analyses were conducted within the 28-day holding time for aqueous samples undergoing CLP protocol. Cyanide analyses were conducted within the 14-day holding time. The cooler temperature upon receipt at the laboratory was within the recommended temperature of 4°C +/- 2°C.

#### 2. CALIBRATION

#### A. Initial Calibration

The percent recoveries for the Initial Calibration Verification (ICV) standard were within Quality Control (QC) limits for all constituents.

#### B. Continuing Calibration

The percent recoveries for the Continuing Calibration Verification (CCV) standard were within QC limits for all constituents.

#### 3. BLANKS

The Initial Calibration Blank (ICB), Continuing Calibration Blanks (CCB) and Preparation Blanks (PB) were analyzed at the appropriate frequencies. No analytes were detected in the ICB, CCB, PB and Field blanks above the corresponding Contract Required Detection Limit (CRDL).

#### 4. ICP INTERFERENCE CHECK SAMPLE

Results for the ICP analysis of the Interference Check Sample (ICS) solution AB were within 20% of the true value.

#### 5. LABORATORY CONTROL SAMPLES

Recoveries were within the control and 120% for a constituents.

#### 6. DUPLICATE ANALYSIS

The Relative Percent Difference (RPD) between the sample and duplicate results were within the acceptance criteria for all target compounds.

#### 7. SPIKE SAMPLE ANALYSIS

The laboratory used sample SKGW611009 for the matrix spike sample. The MS percent recoveries were within the acceptance criteria (75%-125%) with the exception of Selenium in the total (45%) and dissolved (73%) fractions. As per the National Functional Guidelines: if the percent recovery is greater than 30% and less than 74% qualify detected results for that analyte with "J" and non-detected results with "UJ".

#### 8. ICP SERIAL DILUTION

As noted in the National Functional Guidelines: If the analyte concentration is at least 50 times above the IDL, its serial dilution analysis must then agree within 10% of the original determination after corrected for dilution. The serial dilution is performed to determine whether any significant chemical or physical interference's exist due to matrix effects. The serial dilution percent differences were within the acceptance criteria for all target analytes with the exception of Manganese associated with the dissolved fraction.

#### 9. SYSTEM PERFORMANCE

The analytical system appears to have been working well at the time of these analyses, based on the evaluation of the raw data.

#### 10. DOCUMENTATION

GCAL qualified the total metal results for Aluminum, Copper, Lead, and Zinc with an "E" qualifier on the Form 1's to indicate that the %Difference (%D) between the original results and its serial dilution result exceeded the control limit. GCAL qualified the dissolved metal results for Iron with an "E" qualifier on the Form 1's to indicate that the %Difference (%D) between the original results and its serial dilution result exceeded the control limit. The %Differences were actually within the control limit therefore the data validator crossed out the (E) with a single line and dated and initialed the bottom of the report.

#### 11. OVERALL ASSESSMENT

The percent recoveries for Arsenic in the Contract Required Detection Limit (CRDL) standards were 123%, 106%, and 120%.

The percent recoveries for Copper in the Contract Required Detection Limit (CRDL) standards were 84, 81%, and 79%.

The percent recoveries for Selenium in the Contract Required Detection Limit (CRDL) standards were 122%, 100%, and 139%. The Selenium results were previously qualified under Section 7-titled "Spike Sample Analysis".

The percent recoveries for Thallium in the Contract Required Detection Limit (CRDL) standards were 125.8%, 146.7%, and 130.4%.

The percent recoveries for Zinc in the Contract Required Detection Limit (CRDL) standards were 73.9%, 71.5%, and 68.9%.

If the CRDL is greater than 120% then detected results greater than the IDL but less than two times the CRDL are qualified as estimated with "J". If the CRDL is below 80% then detected results are qualified as estimated with "J" and the non-detected results were qualified with "UJ".

The results are acceptable with the validator-added qualifiers.

#### DATA VALIDATION SUMMARY – SAMPLE DELIVERY GROUP 204031909 SEMIVOLATILE ORGANICS

Validation of the Gas Chromatograph/Mass Spectrometer (GC/MS) semi-volatile organics data, as prepared by Gulf Coast Analytical Laboratories (GCAL) for the samples collected from the Skinner Landfill site in March 2004, was conducted by Earth Tech using the National Functional Guidelines for Organic Data Review, (US EPA, October, 1999) as appropriate. The results were reported by GCAL under SDG 204031909.

GCAL#	Sample Description
20403190901	SKGW581009
20403190902	SKGW58DUP1009
20403190903	SKGW631009
20403190904	SKGW611009
20403190905	SKGW61MS1009
20403190906	SKGW61MSD1009
20403190908	SKGWFB1009
20403220801	SKGW06R1009
20403220802	SKGW07R1009
20403220803	SKGW591009
20403220804	SKGW601009
20403220805	SKGW62A1009
20403220806	SKGW641009
20403220807	SKGW651009

#### INTRODUCTION

Analyses were performed according to CLP-Organic Analysis Multi-Media, Multi-Concentration OLM04.2 SOW. Results of the sample analyses are reported by the laboratory as either qualified or unqualified. Unqualified results mean that the reported values may be used without reservation. Various data qualifier codes are used by the laboratory to denote specific information regarding the analytical results. The data validation process is intended to evaluate the data on a technical basis. The data package also was subjected to an internal laboratory quality review prior to submission to Earth Tech for data validation.

During the validation process, laboratory-qualified and unqualified data are verified against all available supporting documentation. Based on this evaluation, qualifier codes may be added, deleted or modified by the data user. Final results are therefore, either qualified or unqualified. Validator-qualified results are annotated with the following codes in accordance with the Functional Guidelines:

U The constituent was analyzed for, but was not detected above the level of the associated analytical reporting limit. The associated value is either the sample quantitation limit or the sample detection limit.

- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Details of the semivolatile data validation findings and conclusions are provided in the following sections of this report:

- 1. Holding Times
- 2. GC/MS Tuning
- 3. Calibration
  - A. IC
  - B. CC
- 4. Blanks
- 5. System Monitoring Compound Recovery
- 6. MS/MSD
- 7. Internal Standards Performance
- 8. Compound Identification
- 9. Constituent Quantitation and Reported Detection Limits
- 10. System Performance
- 11. Documentation
- 12. Overall Assessment



**White** 

#### 1. HOLDING TIMES

All samples were initially extracted within the seven-day technical holding time and the five-day VTSR method holding time. The cooler temperature upon receipt at the laboratory was within the recommended temperature of 4°C +/- 2°C.

#### 2. GC/MS TUNING

The samples were analyzed on a single GC/MS system, identified as MSSV2. Two decafluorotriphenylphosphine (DFTPP) tunes were run representing the shift in which the standards and samples were analyzed. The DFTPP tunes are acceptable.

#### 3. CALIBRATION

#### A. Initial Calibration

One IC dated 3/19/04 was analyzed in support of the semivolatile sample analyses. Documentation of the IC was present in the data package, and the Relative Response Factor (RRF), as well as percent % RSD values were accurately reported for all target compounds. The criteria employed for technical data review purposes are different than those used in the method. The laboratory must meet a minimum RRF of 0.01; however, for data review purposes, a RRF criterion of "greater than or equal to 0.05" is applied to all semi-volatile compounds. The RRF's and the average RRF were within the acceptance criteria specified in the method for all reported analytes. The %RSD's were within the acceptance criteria specified in the method for all target analytes with the exception of Di-n-butylphthalate (32.0%), Di-n-octylphthalate (30.3%) and Diethylphthalate (41.8%). The lowest point of the calibration curve was dropped for Di-n-butylphthalate, Di-n-octylphthalate, and Diethylphthalate and the %RSD were recalculated. The recalculated %RSD's were within the acceptance criteria of less than 30%. Di-n-octylphthalate and Diethylphthalate were not detected in the associated samples therefore data qualification was not required. The detected results for Di-n-butylphthalate were mitigated do to the presence of Di-n-butylphthalate in the associated method blank.

#### B. Continuing Calibration

One CC dated 3/26/04 was analyzed in support of the semivolatile sample analyses reported in the data submissions. The RRF's for the CC dated 3/26/04 were within the acceptance criteria. The percent difference (%D) between the average RRF's and the CC Response Factors for the CC dated 3/26/04 were within the acceptance criteria with the exception the %D for Dinbutylphthalate and Di-n-octylphthalate. As per the National Functional Guidelines, if the %D exceeds the acceptance criteria qualify detected results for that analyte with "J" and non-detected results for that analyte with "UJ".

#### 4. BLANKS

One laboratory semivolatile method blank and field blank were analyzed with this SDG. The results are summarized below.

#### Method Blank (0322SBLK)

Di-n-butylphthalate was detected at a concentration of 0.604 ppb in method blank 0322SBLK.

#### Field Blank (SKGWFB1009)

There were no analytes detected above the MDL in the field blank collected on 3/18/04.

#### 5. SYSTEM MONITORING COMPOUND RECOVERY

All reported semivolatile system monitoring compounds were recovered within acceptable control limits.

#### 6. MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD)

Sample SKGWD611009 was submitted for MS/MSD analysis. The MS/MSD percent recoveries were within the acceptance criteria with the exception of the 4-Nitorphenol. The %RPD between the MS/MSD are within the acceptance criteria. As per the National Functional Guidelines, no action is taken on MS/MSD data alone.

#### 7. INTERNAL STANDARDS PERFORMANCE

Internal standard areas and retention times were within acceptable limits for the reported semivolatile sample analyses.

#### 8. COMPOUND IDENTIFICATION

All reported semivolatile constituents were correctly identified with supporting chromatograms present in the data package.

#### 9. CONSTITUENT QUANTITATION AND REPORTED DETECTION LIMITS

Constituent quantitations were correctly calculated and reported for semivolatile constituents.

#### 10. SYSTEM PERFORMANCE

The analytical system appears to have been working well at the time of these analyses, based on the evaluation of the raw data submitted for review.

#### 11. DOCUMENTATION

The documentation appeared accurate and in order with the exception of the following: GCAL inadvertently left the Date Extracted off of the CLP Form 1's therefore the data validator inserted the Date Extracted on the CLP Form 1's. GCAL also inadvertently left the "B" qualifier off of the CLP Form 1's for the compound Di-n-butylphthalate therefore the data validator inserted a "B" qualifier in the "Q" column of the CLP Form 1's.

The "B" qualifier indicates that the analyte was detected in the associated method blank. On pages 210/212/213/214 sample SKGW07R1009 was not listed but 2 field blanks were listed while only one field blank submitted for analysis. GCAL corrected the mistake and reissued corrected pages.

#### 12. OVERALL ASSESSMENT

The results are acceptable with the validator-added qualifiers.

#### DATA VALIDATION SUMMARY – SAMPLE DELIVERY GROUP 204031909 VOLATILE ORGANIC

Validation of the GC/MS volatile organics data, as prepared by Gulf Coast Analytical Laboratories (GCAL) for the samples collected from the Skinner Landfill site in March 2004, was conducted by Earth Tech using the National Functional Guidelines for Organic Data Review, (US EPA, October, 1999), as appropriate. The results were reported by GCAL under SDG 204031909.

GCAL#	Sample Description
20403190901	SKGW581009
20403190902	SKGW58DUP1009
20403190903	SKGW631009
20403190904	SKGW611009
20403190905	SKGW61MS1009
20403190906	SKGW61MSD1009
20403190908	SKGWFB1009
20403190909	SKTB1009
20403220801	SKGW06R1009
20403220802	SKGW07R1009
20403220803	SKGW591009
20403220804	SKGW601009
20403220805	SKGW62A1009
20403220806	SKGW641009
20403220807	SKGW651009
20403220814	TRIP BLANK

#### INTRODUCTION

Analyses were performed according to CLP-Organic Analysis Low Concentration OLC02.0 SOW. Results of the sample analyses are reported by the laboratory as either qualified or unqualified. Unqualified results mean that the reported values may be used without reservation. Various qualifier codes are used by the laboratory to denote specific information regarding the analytical results. The data validation process is intended to evaluate the data on a technical basis. The data package also was subjected to an internal laboratory quality review prior to submission to Earth Tech for data validation.

During the validation process, laboratory-qualified and unqualified data are verified against all available supporting documentation. Based on this evaluation, qualifier codes may be added, deleted or modified by the data user. Final results are therefore, either qualified or unqualified. Validator-qualified results are annotated with the following codes in accordance with the Functional Guidelines:

- U The constituent was analyzed for, but was not detected above the level of the associated analytical reporting limit. The associated value is either the sample quantitation limit or the sample detection limit.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ The analyte was not detected above the reported sample quantitation limit.

However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

The volatiles data validation findings and conclusions are provided in the following sections of this report:

- 1. Holding Times
- 2. GC/MS Tuning
- 3. Calibration
  - A. IC
  - B. CC
- Blanks
- 5. System Monitoring Compound Recovery
- 6. MS/MSD
- 7. Laboratory Control Sample
- 8. Internal Standards Performance
- 9. Compound Identification
- 10. Constituent Quantitation and Reported Detection Limits
- 11. System Performance

- 12. Documentation
- 13. Overall Assessment

#### 1. HOLDING TIMES

All samples for Volatile Organic Compounds (VOC) analyses were analyzed within the 14-day technical holding time and the 10-day VTSR method holding time. The cooler temperature upon receipt at the laboratory was within the recommended temperature of 4°C +/- 2°C.

#### 2. GC/MS TUNING

The samples were analyzed on two GC/MS system, identified as MSV0 and MSV2. Two bromofluorobenzene (BFB) tunes were run. The BFB tunes are acceptable.

#### 3. CALIBRATION

#### A. Initial Calibration

Two IC's dated 3/21/04 and 3/23/04 were analyzed in support of the volatile sample analyses reported in the data submissions. The IC dated 3/21/04 was analyzed on instrument MSV0 and the IC dated 3/23/04 was analyzed on instrument MSV2. Documentation of the IC standards is present in the data package, and RRF's as well as %RSD values were accurately reported. The criteria employed for technical data review purposes are different than those used in the method. The laboratory must meet a minimum RRF of 0.01; however, for data review purposes, a RRF criterion of "greater than or equal to 0.05" is applied to all volatile compounds. The %RSD's were within the acceptance criteria specified in the method for all target analytes.

The RRF's and the average RRF for the IC dated 3/21/04 were within the acceptance criteria specified in the method for all target analytes with the exception of Acetone and 2-Butnaone. The RRF for the 1.0 ppb standard was below the acceptance criteria. The data validator dropped the 1.0 ppb standard for 1,2-Dibromo-3-chloropropane from the calibration curve and recalculated the average RRF and %RSD. 1,2-Dibromo-3-chloropropane was not detected in any of the associated samples therefore data qualification was not required.

The RRF's and the average RRF for the IC dated 3/23/04 were within the acceptance criteria specified in the method for all target analytes with the exception of Acetone.

As per the National Functional Guidelines, if any initial calibration RRF is less than 0.05, qualify positive results that have acceptable mass spectral identification with "J", using professional judgement, and non-detected analytes as unusable (R).

It should be noted that the laboratory did meet the minimum RRF of 0.01 for all target compounds.

#### B. Continuing Calibration

Two CC dated 3/21/04 and 3/23/04 were analyzed on instrument MSV2 in support of the volatile sample analyses reported in the data submissions.

#### CC dated 3/21/04

The percent difference (%D) between the average RRF's and the CC RF's were within the acceptance criteria for all target analytes. The CC RRF's were within the acceptance criteria specified in the method for all target analytes with the exception of Acetone and 2-Butnaone. The Acetone and 2-Butnaone results were previously qualified under section 3A above.

#### CC dated 3/23/04

The percent difference (%D) between the average RRF's and the CC RF's were within the acceptance criteria for all target analytes. The CC RRF's were within the acceptance criteria specified in the method for all target analytes with the exception of Acetone. The Acetone results were previously qualified under section 3A above.

#### 4. BLANKS

Two laboratory volatile method blanks, storage blank, two Trip Blanks, and a Field Blank were analyzed with this SDG. The results are summarized below.

#### MB153850

1,2-Dichlorobenzene and 1,3-Dichlorobenzene were detected at concentrations of 0.20 ppb and 0.12 ppb respectively in the method blank analyzed on 3/21/04.

#### MB153988

Acetone, 1,2-Dichlorobenzene and 1,3-Dichlorobenzene were detected at concentrations of 1.5 ppb, 0.21 ppb and 0.16 ppb respectively in the method blank analyzed on 3/23/04.

#### Storage Blank (CLP Storage Blank)

Methylene chloride, 1,4-Dichlorobenzene, and 1,2-Dichlorobenzene were detected at concentrations of 0.15 ppb, 0.096 ppb and 0.11 ppb respectively in the storage blank analyzed on 3/23/04.

#### Trip Blank (SKTB1009)

Methylene chloride was detected at a concentration of 0.23 ppb in the Trip Blank submitted for the sampling event that occurred on 3/18/04. The Methylene chloride detected in the trip blank was mitigated by the presence of Methylene chloride in the associated storage blank.

#### Trip Blank

Acetone and Methylene chloride were detected at concentrations 3.1 ppb and 0.24 ppb respectively in the Trip Blank submitted for the sampling event that occurred on 3/16-17/04. The Methylene chloride detected in the trip blank was mitigated by the presence of Methylene chloride in the associated storage blank.

#### Field Blank (SKGWFB1009)

Methylene chloride was detected at a concentration of 0.52 ppb in the Field Blank collected on 3/18/04. The Methylene chloride detected in the trip blank was mitigated by the presence of Methylene chloride in the associated storage blank.

#### 5. SYSTEM MONITORING COMPOUND RECOVERY

All reported volatile system monitoring compounds were recovered within acceptable control limits for all samples.

#### 6. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Sample SKGWD611009 was submitted for MS/MSD analysis. The MS/MSD percent recoveries (60%-140%) and %RPD (<40%) between the MS/MSD were within the acceptance criteria with the exception of the following:

Compound	MS	MSD	RPD
1,1-Dichloroethene	142	150	5
2-Hexanone	58	87	40
4-methyl-2-pentanone	67	102	41
Bromomethane	151	156	3
Carbon disulfide	145	145	0
Chloroethane	132	145	9
Chloromethane	135	146	8
Vinyl chloride	135	143	6

The results that are bolded exceeded the acceptance criteria. As per the National Functional Guidelines, no action is taken on MS/MSD data alone.

#### 7. LABORATORY CONTROL SAMPLE

A LCS was analyzed in conjunction with this SDG. Recoveries were within the control limit for all constituents.

#### 8. INTERNAL STANDARDS PERFORMANCE

Internal Standard (IS) areas and retention times were within acceptable limits for the reported volatile sample analyses.

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### 9. COMPOUND IDENTIFICATION

All reported VOCs were correctly identified with supporting chromatograms present in the data package.

### 10. CONSTITUENT QUANTITATION AND REPORTED DETECTION LIMITS

Constituent quantitations were correctly calculated and reported for VOCs with the exception of Ethylbenzene. The Ethylbenzene standard and detected results were originally quantitated using the incorrect quantitation ion (GCAL used 106 instead of 91). GCAL corrected the mistake and re-submitted the corrected pages that were affected in the laboratory report. The overall effect had no impact in the final result for Ethylbenzene.

#### 11. SYSTEM PERFORMANCE

The analytical system appears to have been working well at the time of these analyses, based on the evaluation of the raw data.

#### 12. **DOCUMENTATION**

The documentation appeared accurate and in order with the exception of the following: GCAL inadvertently transposed the area counts and retention times for IS Chlorobenzene-d5 and 1,4-Dichlorobenzene-d4. The data validator corrected the mistake by drawing arrows to indicate the correct area counts and retention times for IS Chlorobenzene-d5 and 1,4-Dichlorobenzene-d4.

### 13. OVERALL ASSESSMENT

The results are acceptable with the validator-added qualifiers.

## DATA VALIDATION SUMMARY - SAMPLE DELIVERY GROUP 204031909 PESTICIDES

Validation of the Gas Chromatography (GC) pesticides data, as prepared by Gulf Coast Analytical Laboratories (GCAL) for the samples collected from the Skinner Landfill site in March 2004, was conducted by Earth Tech using the National Functional Guidelines for Organic Data Review, (US EPA, October, 1999), as appropriate. The results were reported by GCAL under SDG 204031909.

GCAL#	Sample Description
20403190901	SKGW581009
20403190902	SKGW58DUP1009
20403190903	SKGW631009
20403190904	SKGW611009
20403190905	SKGW61MS1009
20403190906	SKGW61MSD1009
20403190908	SKGWFB1009
20403220801	SKGW06R1009
20403220802	SKGW07R1009
20403220803	SKGW591009
20403220804	SKGW601009
20403220805	SKGW62A1009
20403220806	SKGW641009

#### INTRODUCTION

Analyses were performed according to CLP-Organic Analysis Multi-Media, Multi-Concentration OLM04.2 SOW. Results of the sample analyses are reported by the laboratory as either qualified or unqualified. Unqualified results mean that the reported values may be used without reservation. Various qualifier codes are used by the laboratory to denote specific information regarding the analytical results.

The data validation process is intended to evaluate the data on a technical basis. The data package also was subjected to an internal laboratory quality review prior to submission to Earth Tech for data validation.

During the validation process, laboratory-qualified and unqualified data are verified against all available supporting documentation. Based on this evaluation, qualifier codes may be added, deleted or modified by the data user. Final results are therefore, either qualified or unqualified. Validator-qualified results are annotated with the following codes in accordance with the Functional Guidelines:

U The constituent was analyzed for, but was not detected above the level of the associated analytical reporting limit. The associated value is either the sample quantitation limit or the sample detection limit.

- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Details of the pesticide data validation findings and conclusions are provided in the following sections of this report:

- 1. Holding Times
- 2. Gas Chromatograph/Electronic Capture Detector (GC/ECD) Instrument Performance Check
- 3. IC
- 4. Calibration Verification
- 5. Blanks
- 6. Surrogate Spikes
- 7. Matrix Spike/Matrix Spike Duplicate (MS/MSD)
- 8. Pesticide Cleanup Checks
- 9. Target Compound Identification
- 10. Constituent Quantitation and Reported Detection Limits
- 11. Documentation
- 12. Overall Assessment

#### 1. HOLDING TIMES

All samples were extracted within the seven-day technical holding time and the five-day VTSR method holding time. The cooler temperature upon receipt at the laboratory was within the recommended temperature of 4°C +/- 2°C.

#### 2. GC/ECD INSTRUMENT PERFORMANCE CHECK

The Performance Evaluation Mixture (PEM) was analyzed at the correct frequency. Absolute retention times were within limits.

The percent resolution between adjacent peaks was within QC limits for the Pesticide Analyte Resolution Check. The percent resolution between adjacent peaks is within QC limits for the Performance Evaluation Mixtures (PEM). The percent breakdown for both 4,4-DDT and Endrin in each PEM was less than 20.0% for both GC columns. The combined percent breakdown for 4,4-DDT and Endrin in each PEM was less than 30.0% for both GC columns.

#### 3. INITIAL CALIBRATION

Individual standard mixtures A and B were analyzed at the correct frequencies and concentrations. The percent resolution criterion was met for Individual standard mixtures A and B.

The Percent Relative Standard Deviation (%RSD) of the calibration factors for each of the single component pesticides was less than 20%.

The multi-component target compounds were analyzed separately on both columns at a single concentration level. Retention times were determined from a minimum of three peaks.

#### 4. CALIBRATION VERIFICATION

Absolute retention times were within appropriate time retention windows

#### 5. BLANKS

One laboratory method blank and field blank were analyzed with this SDG. The results are summarized below.

#### Method Blank 154072

No constituents were detected above the laboratory-reporting limit. This blank corresponds to all samples extracted on 3/23/04

### Field Blank (SKGWFB1009)

No constituents were detected above the laboratory-reporting limit in the field blank collected on 3/18/04.

### 6. SURROGATE SPIKES

Decachlorobiphenyl (DCB) and tetrachloro-m-xylene (TCX) surrogate spike recoveries were within the acceptance criteria for all samples.

#### 7. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Sample SKGWD611009 was submitted for MS/MSD analysis. The MS/MSD percent recoveries were within the acceptance criteria. The %RPD between the MS/MSD are within the acceptance criteria.

#### 8. PESTICIDE CLEANUP CHECKS

Recoveries of all pesticides and surrogates were within 80-120% for the lot of Florisil cartridges utilized for pesticide cleanup with the exception of 4,4'-DDT (130%). There were no target compounds detected in the associated samples therefore no action was taken.

#### 9. TARGET COMPOUND IDENTIFICATION

All reported pesticide data were correctly identified with supporting chromatograms present in the data package.

## 10. CONSTITUENT QUANTITATION AND REPORTED DETECTION LIMITS

Constituent quantitations were correctly calculated and reported for pesticide constituents.

#### 11. DOCUMENTATION

The documentation appeared accurate and in order with the exception of the following: GCAL inadvertently left the Date Extracted off of the CLP Form 1's therefore the data validator inserted the Date Extracted on the CLP Form 1's.

#### 12. OVERALL ASSESSMENT

The results are acceptable with the validator-added qualifiers.

## **REFERENCES**

US EPA, 1994. National Functional Guidelines for Inorganic Data Review.

US EPA, 1999. National Functional Guidelines for Organic Data Review.



# **ANALYTICAL RESULTS**

**PERFORMED BY** 

**GULF COAST ANALYTICAL LABORATORIES, INC.** 

Report Date 04/08/2004

**GCAL Report** 204031909

**ADDENDUM** 

Deliver To Earth Tech 200 Vine Street Wilder, KY 41076

859-442-2300

Attn Pat Higgins

er Earth T

Project Skinner Landfill

000001

#### **CASE NARRATIVE**

Client: Earth Tech Report: 204031909

Gulf Coast Analytical Laboratories received and analyzed the sample(s) listed on the sample cross-reference page of this report. Receipt of the sample(s) is documented by the attached chain of custody. This applies only to the sample(s) listed in this report. No sample integrity or quality control exceptions were identified unless noted below.

The ILM04.1 – CLP analysis is resubmitted as an addendum to include an expanded list of compounds at the request of the client. The Addendum includes an updated case narrative.

#### **VOLATILES MASS SPECTROMETRY**

In analytical batch 271073, the MS/MSD exhibited sporadic recovery and RPD failures. The LCS/LCSD recoveries were acceptable.

In analytical batch 271108, no MS/MSD was analyzed due to insufficient sample volume. All LCS/LCSD recoveries were acceptable.

#### SEMI-VOLATILES MASS SPECTROMETRY

The MS/MSD recoveries for 4-Nitrophenol were above the upper control limit. All other batch QC was acceptable.

#### SEMI-VOLATILE GAS CHROMATOGRAPHY

In the Pesticide analysis, the recovery for DDT was above control limits in the Florisil check, however DDT was not detected in the associated samples.

#### **METALS**

In the ILM04.1 - CLP Metals analysis for prep batch 271122, the MS recovery was outside the control limits for Selenium. The LCS recovery was within control limits. This indicates the analysis is in control and the sample is in control and the sample is affected by matrix interference. A post-digestion spike was performed on the QC sample for this batch with a recovery of 49%. Aluminum, Copper, Lead, and Zinc is flagged as estimated for samples associated with prep batch 271122 due to the fact that the percent difference between the original sample result and the serial dilution result is greater than 10. A chemical or physical interference is suspected. The Sample/Duplicate RPD for Vanadium for prep batch 271122 is not applicable because the sample and/or duplicate concentration is less than five times the reporting limit.

In the ILM04.1 - CLP Metals analysis for prep batch 271124, the MS recovery was outside the control limits for Selenium. The LCS recovery was within control limits. This

indicates the analysis is in control and the sample is in control and the sample is affected by matrix interference. A post-digestion spike was performed on the QC sample for this batch with a recovery of 0%. Iron and Manganese is flagged as estimated for samples associated with prep batch 271124 due to the fact that the percent difference between the original sample result and the serial dilution result is greater than 10. A chemical or physical interference is suspected. The Sample/Duplicate RPD for Vanadium for prep batch 271124 is not applicable because the sample and/or duplicate concentration is less than five times the reporting limit.

The Sample/Duplicate RPD for Cyanide, Total for prep batch 271113 is not applicable because the sample and/or duplicate concentration is less than five times the reporting limit.

1

### EPA SAMPLE NO.

INORGANIC ANALYSIS I	DATA	SHEET
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SKGW581009

Lab Name: PF	ROJ AAH GCAL	Co	ntract:				
Lat Code: LA	024 Case No.:	SA	S No.:		SDG No.:		
Matrix: ( soil / w	ater) Water	Lab S	Sample ID: 2	20403190901			
Level: ( low / me	ed )	Date	Received: _0	03/19/04			
% Solids:							
Concentration	Units (ug/L or mg/kg dry weight	r) : ug/L					
CAS No.	Analyte	Concentration	C		Q	M	
7429-90-5	Aluminum	12000			2	Р	
7440-36-0	Antimony	5.7	В			Р	
7440-38-2	Arsenic	11.5	T			Р	T
7440-39-3	Barium	284				Р	`
7440-41-7	Beryllium	1.0	В			Р	
7440-43-9	Cadmium	1.5	В			Р	
7440-70-2	Calcium	214000				Р	
7440-47-3	Chromium	28.2				Р	
7440-48-4	Cobalt	13.4	В			Р	1
7440-50-8	Copper	45.7		.,	E .	Р	Bash
7439-89-6	iron	32700				Р	
7439-92-1	Lead	19.5			声	Р	
7439-95-4	Magnesium	56000				Р	}
7439-96-5	Manganese	1300				Р	
7439-97-6	Mercury	0.1	U			AV	
7440-02-0	Nickel	32.1	В			Р	
7440-09-7	Potassium	7640				Р	_
7782-49-2	Selenium	4.4	U		N	Р	] u J
7440-22-4	Silver	0.4	U			Р	
7440-23-5	Sodium	33500				Р	
7440-28-0	Thallium	4.1	В			P	T
7440-62-2	Vanadium	23.2	B			P	_
7440-66-6	Zinc	81.0			Z	P	T
57-12-5	Cyanide	0.5	U			AS	j
						91	Salus post
Color Before:	LT.BROWN	Clarity Before:	CLEAR		Texture:		
Color After:	LT.BROWN	Clarity After:	CLEAR		Artifacts:	<del></del>	
Comments:							

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## INORGANIC ANALYSIS DATA SHEET

Contract:

The married

Lab Name: PROJ AAH GCAL

EPA	SAMPLE	NO.

SKGW58DUP1009	

Addition   Antimony   Addition   Antimony   Addition   Antimony   Addition   Antimony   Addition   Antimony   Addition   Antimony   Addition   Antimony   Addition   Antimony   Addition   Antimony   Addition   Antimony   Addition   Antimony   Addition   Antimony   Addition   Antimony	Lati Code: <u>LA0</u>	24 Case No.:	SAS I	No.:	SDG N	lo.:	
Date Received: 03/19/04   Solids:   Oncentration Units (ug/L or mg/kg dry weight): ug/L   Ug/L   Oncentration Units (ug/L or mg/kg dry weight): ug/L   Oncentration Units (ug/L or mg/kg dry weight): ug/L   Oncentration   C   Q   M   Oncentration   Q   M   P   Oncentration   Q   P   Oncentration   Q   P   Oncentration   Q   P   Oncentration   Q   P   Oncentration   Q   P   Oncentration   Q   P   Oncentration   Q   P   Oncentration   Q   P   Oncentration   Q   P   Oncentration   Q   P   Oncentration   Q   Oncentration   Q   P   Oncentration   Q   Oncentration   Q   Oncentration   Q   P   Oncentration   Q   Oncentra	Matrix: ( soil / wat	ter) Water	Lab Sar	mple ID: 204031	90902		
Solids:   Soli	Level: ( low / med	<u> </u>					***************************************
CAS No.			Date Re	eceived: 03/19/0	<u> </u>		
CAS No.         Analyte         Concentration         C         Q         M           129-90-5         Aluminum         17100         P         P           140-38-0         Antimony         3.7         B         P           40-39-3         Barium         326         P           40-39-3         Barium         326         P           40-41-7         Beryllium         1.3         B         P           40-41-7         Beryllium         1.9         B         P           40-43-9         Cadmium         1.9         B         P           40-47-3         Chromium         41.8         P         P           40-47-3         Chromium         41.8         P         P           40-47-3         Chromium         41.8         P         P           40-48-4         Cobalt         19.5         B         P         P           40-48-50-8         Copper         55.9         P         P         P           339-89-6         Iron         48400         P         P           339-95-1         Lead         27.2         P         P           339-95-6         Manganese         1500<							
17100	Concentration U	nits (ug/L or mg/kg dry weight	): ug/L				
Addition   Antimony   Addition   Antimony   Addition   Antimony   Addition   Antimony   Addition   Antimony   Addition   Antimony   Addition   Antimony   Addition   Antimony   Addition	CAS No.	Analyte	Concentration	С	Q	M	
Ado-38-2   Arsenic   15.1   P   Ado-39-3   Barium   326   P   P   Ado-39-3   Barium   326   P   P   Ado-41-7   Beryllium   1.3   B   P   P   Ado-43-9   Cadmium   1.9   B   P   P   Ado-47-3   Chromium   41.8   P   P   Ado-47-3   Chromium   41.8   P   P   Ado-47-3   Chromium   41.8   P   P   P   Ado-47-3   Chromium   41.8   P   P   P   Ado-47-3   Chromium   41.8   P   P   P   P   Ado-47-3   Chromium   41.8   P   P   P   P   P   P   P   P   P	429-90-5	Aluminum	17100		Æ	Р	
Ado-39-3   Barlum   326   P	440-36-0	Antimony	3.7	В		Р	
Ado-39-3   Barium   326   P   P	440-38-2	Arsenic	15.1			Р	J
1.9   B   P	440-39-3	Barium	326			P	
	440-41-7	Beryllium	1.3	В		Р	
140-47-3   Chromium	440-43-9	Cadmium	1.9	В		Р	
	440-70-2	Calcium	256000			Р	
140-50-8   Copper   55.9   P   P     139-88-6   Iron   48400   P     139-92-1   Lead   27.2   P   P     139-95-4   Magnesium   63200   P     139-96-5   Manganese   1500   P     139-97-6   Mercury   0.1   U   AV   140-02-0   Nickel   46.4   P     140-09-7   Potassium   8480   P     140-22-4   Silver   0.4   U   N   P     140-23-5   Sodium   34600   P     140-23-5   Sodium   2.6   U   P     140-62-2   Vanadium   32.9   B   P     140-66-6   Zinc   125   P     1	′44C⊢47-3	Chromium	41.8			Р	1
139-92-1   Lead   27.2   P   P   139-92-1   Lead   27.2   P   P   139-95-4   Magnesium   63200   P   P   139-96-5   Manganese   1500   P   P   140-02-0   Nickel   46.4   P   P   P   P   P   P   P   P   P	440-48-4	Cobalt	19.5	В		Р	
139-92-1   Lead   27.2   P   P   139-92-1   Lead   27.2   P   P   139-95-4   Magnesium   63200   P   P   139-96-5   Manganese   1500   P   P   140-02-0   Nickel   46.4   P   P   P   P   P   P   P   P   P	440-50-8	Copper	55.9		P'	Р	T Mist
139-95-4   Magnesium   63200   P   139-96-5   Manganese   1500   P   140-02-0   Nickel   46.4   P   140-02-4   Silver   0.4   U   N   P   140-02-5   Sodium   34600   P   140-02-0   Thallium   2.6   U   P   140-02-0   Thallium   32.9   B   P   140-06-6   Zinc   125   F   T   T   The P   T   T   The P   T   The P   T   The P   T   The P   T   The P   T   The P   T   The P   T   The P   T	<b>'</b> 439-89-6	Iron	48400			Р	
139-96-5   Manganese   1500   P   139-97-6   Mercury   0.1   U   AV   AV   140-02-0   Nickel   46.4   P   140-09-7   Potassium   8480   P   140-22-4   Silver   0.4   U   N   P   140-23-5   Sodium   34600   P   140-23-5   Sodium   34600   P   140-28-0   Thallium   2.6   U   P   140-62-2   Vanadium   32.9   B   P   140-66-6   Zinc   125   F   T   T   T   T   T   T   T   T   T	439-92-1	Lead	27.2		Æ	P	
139-97-6   Mercury	439-95-4	Magnesium	63200			P	
140-02-0   Nickel   46.4   P	439-96-5	Manganese	1500			Р	
140-09-7   Potassium   8480   P	7439-97-6	Mercury	0.1	U	<del></del>	AV	<b>j</b>
782-49-2       Selenium       4.4       U       N       P       U1         140-22-4       Silver       0.4       U       P       U1       P         140-23-5       Sodium       34600       P	440-02-0	Nickel	46.4		<del></del>	P	j
140-22-4     Silver     0.4     U     P       140-23-5     Sodium     34600     P       140-28-0     Thallium     2.6     U     P       140-62-2     Vanadium     32.9     B     P       140-66-6     Zinc     125     P	7440-09-7	Potassium	8480			P	
140-23-5     Sodium     34600     P       140-28-0     Thallium     2.6     U     P       140-62-2     Vanadium     32.9     B     P       140-66-6     Zinc     125     F     P	782-49-2	Selenium	4.4	U	N	Р	uI
140-28-0         Thallium         2.6         U         P           140-62-2         Vanadium         32.9         B         P           140-66-6         Zinc         125         F         P	440-22-4	Silver	0.4	<del>U</del>		P	
140-62-2     Vanadium     32.9     B     P       140-66-6     Zinc     125     P	440-23-5	Sodium	34600			P	1
140-66-6 Zinc 125 P	440-28-0	Thallium	2.6	U		Р	
<del></del>	440-62-2	Vanadium	32.9	В	·	P	1
	7440-66-6	Zinc	125		Æ	Р	7
	7-12-5	Cyanide	0.5	U		AS	1
احداء	7440-23-5 7440-28-0 7440-62-2 7440-66-6 57-12-5	Thallium Vanadium Zinc	2.6 32.9 125	В	Æ	P P P AS	]
	Color Before:	LT.BROWN	Clarity Before:	CLEAR	Textu	re:	
olor Before: LT.BROWN Clarity Before: CLEAR Texture:	Color After:	LT.BROWN	Clarity After:	CLEAR	Artifac	cts:	
	Comments:						

5. EPA - CLI

### EPA SAMPLE NO.

INORGANIC	ANALYSIS	DATA	SHEET
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CL	(C)\A	1621	1009

_ab Code: _LA0	O24 Case No.:	SAS N	o.:	SDG I	No.:	
Matrix: ( soil / wa	ater) Water	Lab Sam	ple ID: 204031	90903		
Level: ( low / me	d)	Date Rec	ceived: 03/19/0	)4		
% Solids:	1874	Date Net	207101			
Concentration (	Jnits (ug/L or mg/kg dry we	ight) : ug/L				
CAS No.	Analyte	Concentration	С	Q	М	
7429-90-5	Aluminum	26600		F	Р	
7440-36-0	Antimony	5.7	В		Р	
7440-38-2	Arsenic	17.1			Р	1
7440-39-3	Barium	186	В		P	-
7440-41-7	Beryllium	2.1	В		Р	
7440-43-9	Cadmium	2.5	В		P	
7440-70-2	Calcium	465000			Р	
7440-47-3	Chromium	38.2			Р	
7440-48-4	Cobalt	28.3	В		Р	
7440-50-8	Copper	69.2		12	Р	Anv
74:39-89-6	tron	63200			Р	
7439-92-1	Lead	41.0		<u> </u>	Р	
7439-95-4	Magnesium	111000			Р	
7439-96-5	Manganese	2570			Р	
7439-97-6	Mercury	0,1	U		AV	
7440-02-0	Nickel	58.1			Р	
7440-09-7	Potassium	9320			Р	
7782-49-2	Selenium	4.4	U	N	Р	LIT
7440-22-4	Silver	0.4	U		P	
7440-23-5	Sodium	45000			Р	
7440-28-0	Thallium	8.5	В		P	J
7440-62-2	Vanadium	43.0	В		Р	
7440-66-6	Zinc	176		æ	Р	I
57-12-5	Cyanide	0.5	U		AS	

Color Before:	LT.BROWN	Clarity Before:	CLEAR	Texture:	
Color After:	LT.BROWN	Clarity After:	CLEAR	Artifacts:	

Comments:

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### EPA SAMPLE NO.

INORGANIC	ANALYSIS	DATA	SHEET
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SKGW	311009	

Lab Name: PF	ROJ AAH GCAL	Contra	ct:	<u></u> _		
Lab Code: LA	024 Case No.:	SAS No	o.:	SDG No	).:	
Matrix: ( soi! / wa	ater) Water	Lab Sam	ple ID: _204031909	904		
Level: ( low / me	ed )	Date Rec	ceived: 03/19/04			
% Solids:			<u> </u>			
	Units (ug/L or mg/kg dry weig	ght): ug/L				
CAS No.	Analyte	Concentration	С	Q	М	7
7429-90-5	Aluminum	452		Ţ.	P	1
7440-36-0	Antimony	4.8	В		Р	]
7440-38-2	Arsenic	2.9	U	-,	Р	1
7440-39-3	Barium	44.1	В		P	1
7440-41-7	Beryllium	0.2	В	<del></del>	Р	1
7440-43-9	Cadmium	0.3	В	<del> </del>	Р	1
7440-70-2	Calcium	187000			Р	1
7440-47-3	Chromium	1.9	В	·· <u>·</u>	Р	1
7440-48-4	Cobalt	1.7	В		Р	1 ,
440-50-8	Copper	22.2	В	Æ	Р	Town
7439-89-6	Iron	2430			Р	1
7439-92-1	Lead	22.1		¥	Р	1
7439-95-4	Magnesium	30000			Р	†
7439-96-5	Manganese	527			Р	1
7439-97-6	Mercury	0.1	U		AV	1
7440-02-0	Nickel	4.3	В	<del></del>	Р	1
7440-09-7	Potassium	6950			Р	†
7782-49-2	Selenium	4.4	U	N	Р	uJ
7440-22-4	Silver	0.4	U	·	Р	1
440-23-5	Sodium	27000			Р	1
440-28-0	Thallium	2.6	Ü	<del></del>	Р	1
7440-62-2	Vanadium	2.1	В	<del></del>	Р	1
74-40-66-6	Zinc	7.3	В	Æ	Р	1
57-12-5	Cyanide	0.5	U		AS	1

Color Before:	COLORLESS	Clarity Before:	CLEAR	Texture:	al social financia company, and space a social confidence of the large property of the l
Color After:	COLORLESS	Clarity After:	CLEAR	Artifacts:	

Comments:

1

### EPA SAMPLE NO.

SKGW61MS1009

Lab Name: PROJ AAH GCAL  Lab Code: LA024 Case No.:		Contra	ct:		SDG No.:		
		SAS N	o.:	SDG I			
Matrix: ( soil / w	ater) Water	Lab Sam	ple ID: 20403	190905			
Level: ( low / me	ed)		ceived: 03/19/				
% Solids:			·				
Concentration	Units (ug/L or mg/kg dry weigl	nt) : ug/L					
CAS No.	Analyte	Concentration	С	Q	M		
7429-90-5	Aluminum	2520			P		
7440-36-0	Antimony	116		<del></del>	P		
7440-38-2	Arsenic	50.0		·- <u>-</u>	P	1	
7440-39-3	Barium	2120			Р		
7440-41-7	Beryllium	53.8			Р		
7440-43-9	Cadmium	50.4			P		
7440-70-2	Calcium	188000			Р		
7440-47-3	Chromium	209			P		
7440-48-4	Cobalt	498			Р		
7440-50-8	Copper	279		Æ	P	Insi	
7439-89-6	Iron	3390			Р		
7439-92-1	Lead	42.2		<i>P</i> E'	Р		
7439-95-4	Magnesium	29400			Р		
7439-96-5	Manganese	1060			Р		
7439-97-6	Мегсигу	5.1			AV		
7440-02-0	Nickel	503			Р		
7440-09-7	Potassium	7060			P		
7782-49-2	Selenium	4.5	В	N	Р	I	
7440-22-4	Silver	51.5			Р		
7440-23-5	Sodium	27200			Р		
7440-28-0	Thallium	48.3				I	
7440-62-2	Vanadium	531		·	Р		
7440-66-6	Zinc	480		Z.		J	
57-12-5	Cyanide	86.1			AS		
					ч	13=1=5 pru	
Color Before:		Clarity Before:		Textu	ıre:		
Color After:		Clarity After:		Artifa	cts:	A 10 10 10 10 10 10 10 10 10 10 10 10 10	
Comments:							

1

#### EPA SAMPLE NO.

INORGANIC	ANALYSIS	DATA	SHEET

Lab Name: _F	PROJ AAH GCAL	Contra	ct:			
Lab Code: LA024 Case No.:		SAS N	o.:	SDG No.		
Matrix: ( soil / v	water) Water	Lab Sam	ple ID: 2040	3190907		
Level: ( low / n	ned)		ceived: 03/19			
% Solids:				<del> </del>		
Concentration	Units (ug/L or mg/kg dry weig	ht): ug/L				
CAS No.	Analyte	Concentration	С	Q	M	1
7429-90-5	Aluminum	470		P	P	1
7440-36-0	Antimony	5.5	В		P	1
7440-38-2	Arsenic	3.7	В		Р	1 1
7440-39-3	Barium	45.4	В		P	1
7440-41-7	Beryllium	0.2	В		Р	1
7440-43-9	Cadmium	0.3	В		Р	7
7440-70-2	Calcium	192000			Р	7
7440-47-3	Chromium	1.6	В		Р	
7440-48-4	Cobalt	1.6	В		Р	]
7440-50-8	Соррег	18.6	В	E	Р	Z'min.
7439-89-6	Iron	2490			P	
7439-92-1	Lead	22.5		<b>Z</b>	Р	]
7439-95-4	Magnesium	30300		<u>                                     </u>	P	
7439-96-5	Manganese	530			Р	
7439-97-6	Mercury	0.1	U		AV	_
7440-02-0	Nickel	3.7	B		Р	
7440-09-7	Potassium	7140			Р	<u> </u>
7782-49-2	Selenium	4.4	<u>U</u>	N	P	43
7440-22-4	Silver	0.4	U	<del> </del>	P	_
7440-23-5	Sodium	27800	<del></del>		Р	4
7440-28-0	Thallium	2.6	U	ļ	P	_
7440-62-2	Vanadium	1.7	B		P	1
7440-66-6 57-12-5	Zinc Cyanide	7.0	В	Æ	P AS	1 1
101-12-0	oyanide	0.0		<b>J</b>		9/35/05
Color Before:		Clarity Before:		Texture:	-	The state of the s
Color After:		Clarity After:	***************************************	Artifacts	:	
Comments:						

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#### EPA SAMPLE NO.

INORGANIC AN	ALYSIS	DATA	SHEET
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Lab Name: PF	ROJ AAH GCAL	Contra	ct:		
Lab Code: LA	024 Case No.:	SAS N	o.:	SDG	No.:
Matrix: ( soil / wa	ater) Water	. Lab Sam	ple ID: 204031	90908	
Level: ( low / me	ed )	Date Rec	ceived: 03/19/0	n4	
% Solids:		Date No.			
Concentration l	Units (ug/L or mg/kg dry we	ight): ug/L			
CAS No.	Analyte	Concentration	С	Q	М
429-90-5	Aluminum	25.8	U	2	P
7440-36-0	Antimony	3.7	U		P
7440-38-2	Arsenic	2.9	Ü		P
7440-39-3	Barium	0.4	В		Р
7440-41-7	Beryllium	0.1	U	<del></del>	P
7440-43-9	Cadmium	0.2	U		P
7440-70-2	Calcium	93.4	В		P
7440-47-3	Chromium	0.8	<del>-                                    </del>	<del></del>	P
7440-48-4	Cobalt	0.4	U		P
7440-50-8	Copper	1.2	U	2	P
7439-89-6	Iron	14.1	U	<del></del>	P
7439-92-1	Lead	1.5	U	7	P
7439-95-4	Magnesium	72.5	В	<del></del>	P
7439-96-5	Manganese	0.8	В	<del></del>	Р
7439-97-6	Mercury	0.1	U		AV
7440-02-0	Nickel	0.9	В		P
7440-09-7	Potassium	42.1	U	<del></del>	P
7782-49-2	Selenium	4.4	Ü	N	PUI
7440-22-4	Silver	0.4	Ū		P
744.0-23-5	Sodium	139	В		P
7440-28-0	Thallium	4.6	В	<del>_</del>	PI
7440-62-2	Vanadium	0.8	<del>U  </del>		P
	Zinc	3.2	В	P	P I
7440-66-6		0.5	U		AS

Color Before:	COLORLESS	Clarity Before:	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After:	CLEAR	Artifacts:	

Comments:

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#### EPA SAMPLE NO.

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INORGANIC	ANALYSIS	DATA	SHEEL

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Lab Name: PROJ AAH GCAL	Contract:			
Lab Code: LA024 Case No.:	SAS No.:		SDG No.:	
Matrix: ( soil / water ) Water	Lab Sample ID:	20403190910		
Level: ( low / med )	Date Received:	03/19/04		
% Solids:				
Concentration Units (un/L or ma/ka dry weight): ua/L				

Zinc

7440-66-6

CAS No.	Analyte	Concentration	С	Q	M	7
7429-90-5	Aluminum	25.8	Ū I	<del></del>	P	1
7440-36-0	Antimony	3.7	U		P	1
7440-38-2	Arsenic	3.1	В		Р	1
7440-39-3	Barium	156	В		P	1
7440-41-7	Beryllium	0.1	U		P	7
7440-43-9	Cadmium	0.2	U		P	1
7440-70-2	Calcium	109000			Р	7
7440-47-3	Chromium	1.5	В		P	7
7440-48-4	Cobalt	1.3	В		P	7
7440-50-8	Copper	2.9	В	<del></del>	P	7.7
7439-89-6	Iron	209	j	J.	P	7
7439-92-1	Lead	1.5	υ		Р	7
7439-95-4	Magnesium	32500		<del></del>	P	1
7439-96-5	Manganese	549		E	P	11
7439-97-6	Mercury	0.1	U		AV	7 `
7440-02-0	Nickel	2.6	В		P	1
7440-09-7	Potassium	4550	В		P	7
7782-49-2	Selenium	4.4	U	N	P	TUI
7440-22-4	Silver	0.4	U		Р	1
7440-23-5	Sodium	32400			P	7
7440-28-0	Thallium	2.6	U		P	7
7440-62-2	Vanadium	1.6	В	<del>-</del>	Р	1
	<del></del>	<del></del>				

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Color Before:	COLORLESS	Clarity Before:	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After:	CLEAR	Artifacts:	
Comments:					

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#### EPA SAMPLE NO.

### INORGANIC ANALYSIS DATA SHEET

SKGW58D	I ID4000	(DICC)

Lab Name: PROJ AAH GCAL	Contract:	
Lab Code: LA024 Case No.:	SAS No.:	SDG No.:
Matrix: ( soil / water ) Water	Lab Sample ID: 20403190911	
Level: ( low / med )	Date Received: 03/19/04	
% Solids:		

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	С	Q	M
7429-90-5	Aluminum	25.8	U		P
7440-36-0	Antimony	3.7	U		Р
7440-38-2	Arsenic	2.9	U		Р
7440-39-3	Barium	164	В		Р
7440-41-7	Beryllium	0.1	U	<u> </u>	P
7440-43-9	Cadmium	0.2	U		P
7440-70-2	Calcium	109000			P
7440-47-3	Chromium	1.3	В		P
7440-48-4	Cobalt	1.3	В	·	Р
7440-50-8	Copper	1.2	U		Р
7439-89-6	Iron	201		X	P
7439-92-1	Lead	1.5	U		Р
7439-95-4	Magnesium	34400			Р
7439-96-5	Manganese	492		Ê	Р
7439-97-6	Mercury	0.1	U		AV
7440-02-0	Nickel	2.0	В		P
7440-09-7	Potassium	5130		<del></del>	Р
7782-49-2	Selenium	4.4	U	N	P
7440-22-4	Silver	0.4	U		P
7440-23-5	Sodium	35200			P
7440-28-0	Thallium	2.6	U		P
7440-62-2	Vanadium	1.4	В		P
7440-66-6	Zinc	0.6	U		Р

9/30/05

Color Before:	COLORLESS	Clarity Before:	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After:	CLEAR	Artifacts:	
Comments:					

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### EPA SAMPLE NO.

INORGANIC	ANALYSIS	DATA	SHEET

SKGW631009(DISS)	

Lab Name: PROJ AAH GCAL	Contract:	
Lab Code: LA024 Case No.:	SAS No.:	SDG No.:
Matrix: ( soil / water ) Water	Lab Sample ID: 20403190912	
Level: ( low / med )	Date Received: 03/19/04	
% Solids:	***************************************	

Concentration Units (ug/L or mg/kg dry weight):

ug/i	-

CAS No.	Analyte	Concentration	С	Q	M	
7429-90-5	Aluminum	25.8	U		P	1
7440-36-0	Antimony	3.8	В		P	1
7440-38-2	Arsenic	2.9	U		Р	
7440-39-3	Barium	20.1	В		P	1
7440-41-7	Beryllium	0.2	В		P	1
7440-43-9	Cadmium	0.2	U .		Р	1
7440-70-2	Calcium	295000			P	1
7440-47-3	Chromium	1.8	В		Р	1
7440-48-4	Cobalt	1.1	В		P	1
7440-50-8	Copper	2.0	В		P	1
7439-89-6	Iron	21.4	В	玉	P	1
7439-92-1	Lead	1.5	U		P	1
7439-95-4	Magnesium	67000			Р	1
7439-96-5	Manganese	271		E	P	1.1
7439-97-6	Mercury	0.1	U		AV	7
7440-02-0	Nickel	3.2	В		P	1
7440-09-7	Potassium	5210			P	1
7782-49-2	Selenium	4.4	U	N	P	∣u1
7440-22-4	Silver	0.4	U		P	†
7440-23-5	Sodium	46100			P	1
7440-28-0	Thallium	4.6	В	<del></del>	P	1
7440-62-2	Vanadium	0.8	U		P	1 ]
7440-66-6	Zinc	0.6	U		P	√ u:

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Color Before:	COLORLESS	Clarity Before:	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After:	CLEAR	Artifacts:	
Comments:					•

# INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SKGW611009(DISS)	

Lab Name:	PROJ AAH GCAI		Contract:		
Lab Code: _	LA024	Case No.:	SAS No.:		SDG No.:
Matrix: ( soil.	/water) Water		Lab Sample ID:	20403190913	
Level: ( low /	med )		Date Received:	03/19/04	
% Solids:					

ug/L Concentration Units (ug/L or mg/kg dry weight):

CAS No.	Analyte	Concentration	С	Q	M	
7429-90-5	Aluminum	25.8	Ū		Р	1
7440-36-0	Antimony	4.5	В		P	1
7440-38-2	Arsenic	2.9	U		Р	1
7440-39-3	Barium	39.4	В		Р	1
7440-41-7	Beryllium	0.1	В		Р	1
7440-43-9	Cadmium	0.3	В		Р	1
7440-70-2	Calcium	191000			Р	1
7440-47-3	Chromium	1.1	В		Р	1
7440-48-4	Cobalt	1.4	В		Р	1
7440-50-8	Соррег	8.0	В		Р	1 7
7439-89-6	Iron	187		Æ	Р	1
7439-92-1	Lead	1.5	U		Р	1
7439-95-4	Magnesium	29100			Р	1
7439-96-5	Manganese	485		Е	Р	1 –
7439-97-6	Mercury	0.1	U		AV	1
7440-02-0	Nickel	4.2	В		Р	1
7440-09-7	Potassium	6990			Р	1
7782-49-2	Selenium	4.4	U	N	Р	li
7440-22-4	Silver	0 4	U		Р	1
7440-23-5	Sodium	27900			P	1
7440-28-0	Thallium	2.6	U		P	1
7440-62-2	Vanadium	1.2	В	<del></del>	Р	1
7440-66-6	Zinc	0.6	U		P	1.

Color Before:	COLORLESS	Clarity Before:	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After:	CLEAR	Artifacts:	
Comments:					

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# EPA SAMPLE NO.

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Lab Name: PROJ AAH GCAL	Contract:	
Lab Code: LA024 Case No.:	SAS No.:	SDG No.:
Matrix: ( soil / water ) Water	Lab Sample ID: 20403190914	
Level: ( low / med )	Date Received: 03/19/04	
% Solids:	<del>Ni ya kana a kana a kana a kana a kana a kana a kana a kana a kana a kana a kana a kana a kana a kana a kana a</del>	

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	С	Q	M	]
7429-90-5	Aluminum	2150		<del></del>	P	1
7440-36-0	Antimony	117			Р	1
7440-38-2	Arsenic	48.4			Р	1
7440-39-3	Barium	2110			Р	1
7440-41-7	Beryllium	54.3			P	7
7440-43-9	Cadmium	50.1			Р	1
7440-70-2	Calcium	184000			Р	1
7440-47-3	Chromium	208			P	1
7440-48-4	Cobalt	489			P	٦.
7440-50-8	Copper	272			Р	1
7439-89-6	Iron	1210		P	Р	1
7439-92-1	Lead	18.7			P	1
7439-95-4	Magnesium	28600			P	1
7439-96-5	Manganese	991		E	P	
7439-97-6	Mercury	4.1			AV	1
7440-02-0	Nickel	491			P	1
7440-09-7	Potassium	6730			Р	7
7782-49-2	Selenium	7.3		N	Р	]
7440-22-4	Silver	52.9			Р	1
7440-23-5	Sodium	27300			Р	1
7440-28-0	Thallium	53.5			P	7
7440-62-2	Vanadium	532			Р	1
7440-66-E	Zinc	467			P	7

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Color Before:	Angelogista planting and the contract of the c	Clarity Before:	 Texture:	
Color After:	18	Clarity After:	Artifacts:	The same of the sa
Comments:				

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#### EPA SAMPLE NO.

INORGANIC	ANALYSIS	DATA	SHEET

SKGW61DUP1009 (DISS)

Lab Name: PROJ AAH GCAL	Contract:	
Lab Code: LA024 Case No.:	SAS No.:	SDG No.:
Matrix: ( soil / water ) Water	Lab Sample ID: 20403190915	
Level: ( low / med )	Date Received: 03/19/04	
% Solids:	Den Hand State (Marie Paris) are grandered enright	

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	С	Q	М	7
7429-90-5	Aluminum	25.8	U	<del></del>	Р	1
7440-36-0	Antimony	3.7	U		P	1
7440-38-2	Arsenic	2.9	U		Р	1
7440-39-3	Barium	38.9	В		Р	1
7440-41-7	Beryllium	0.1	В		P	7
7440-43-9	Cadmium	0.2	U		P	1
7440-70-2	Calcium	186000			Р	1
7440-47-3	Chromium	1.3	В		P	
7440-48-4	Cobalt	1.3	В		P	7
7440-50-8	Copper	5.2	В		Р	٦
7439-89-6	Iron	195		,£'	Р	7
7439-92-1	Lead	1.5	U		Р	1
7439-95-4	Magnesium	28400			Р	1
7439-96-5	Manganese	477		E	P	٦٠
7439-97-6	Mercury	0.1	U	_	AV	1
7440-02-0	Nickel	3.6	В		P	1
7440-09-7	Potassium	6860	-		Р	٦
7782-49-2	Selenium	4.4	U	N	P	7
7440-22-4	Silver	0.4	U	- · · · · · · · · · · · · · · · · · · ·	Р	7
7440-23-5	Sodium	27200			Р	1
7440-28-0	Thallium	5.6	В		P	1
7440-62-2	Vanadium	1.8	В	<del> </del>	Р	1
7440-66-6	Zinc	0.6	Ü		P	1

Color Before:	Clarity Before:	 Texture:	
Color After:	 Clarity After:	Artifacts:	
Comments:			

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EPA SAMPLE NO.

OKONEDA SES	(0.00)
SKGWFB1009	(DISS)

Lab Name: PROJ AAH GCAL	Contract:	
Lab Code: LA024 Case No.:	SAS No.:	SDG No.:
Matrix: ( soil / water ) Water	Lab Sample ID: 20403190916	
Level: ( low / med )	Date Received: 03/19/04	
% Solids:	***************************************	

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	С	Q	M
7429-90-5	Aluminum	25.8	Ü		Р
7440-36-0	Antimony	3.7	В		P
7440-38-2	Arsenic	2.9	U		Р
7440-39-3	Barium	0.3	U		P
7440-41-7	Beryllium	0.1	U		Р
7440-43-9	Cadmium	0.2	U		Р
7440-70-2	Calcium	34.9	В		Р
7440-47-3	Chromium	0.8	U		Р
7440-48-4	Cobalt	0.5	В		P
7440-50-8	Copper	1.2	U		P
7439-89-6	Iron	14.1	U	<u></u>	P
7439-92-1	Lead	1.5	U		Р
7439-95-4	Magnesium	47.3	В		Р
7439-96-5	Manganese	0.2	U	E	P
7439-97-6	Mercury	0.1	U		AV
7440-02-0	Nickel	0.7	U		Р
7440-09-7	Potassium	42.1	U		Р
7782-49-2	Selenium	4.4	U	N	Р
7440-22-4	Silver	0.4	U		P
7440-23-5	Sodium	120	В		P
7440-28-0	Thallium	7.5	В		P
7440-62-2	Vanadium	0.8	U		Р
7440-66-6	Zinc	0.6	U		Р

Color Before:	COLORLESS	Clarity Before:	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After:	CLEAR	Artifacts:	
Comments:					

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EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET
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Lab Name: P	ROJ AAH GCAL	Contra	ıct:			
	.024 Case No.:		lo.:		<b>o</b> .:	
<del></del>	vater) Water		nple ID: 204032	<del></del>		
	ed )					
% Solids:		Date Re	ceived: 03/19/0	04		
	Units (ug/L or mg/kg dry weig	ght) : ug/L				
CAS No.	Analyte	Concentration	С	Q	М	
7429-90-5	Aluminum	9900	<u>-</u>	, E	P	
7440-36-0	Antimony	5.5	В	<b>_</b>	Р	
7440-38-2	Arsenic	12.4			PJ	
7440-39-3	Barium	440			P	
7440-41-7	Beryllium	1.1	В		Р	
7440-43-9	Cadmium	1.0	В		P	
7440-70-2	Calcium	309000			Р	
7440-47-3	Chromium	16.9			Р	
7440-48-4	Cobalt	12.3	В		Р	
7440-50-8	Copper	39.3		J.P.	P	
7439-89-6	Iron	25300			P	
7439-92-1	Lead	23.9		<i>J</i> .	P	
7439-95-4	Magnesium	83600			P	
7439-96-5	Manganese	988		<del></del>	P	
7439-97-6	Mercury	0.1	U		AV	
7440-02-0	Nickel	23.4	В		P	
7440-09-7	Potassium	3970	В		P	7
7782-49-2	Selenium	4.4	U	N	P W.	,
7440-22-4	Silver	0.4	U		P	
7440-23-5	Sodium	21900	<del></del>		P	
7440-28-0	Thallium	2.6	U		P	
7440-62-2	Vanadium	22.2	В		P	
7440-66-6 57-12-5	Zinc Cyanide	72.9	В В	,RE	P J	
01.112.0	Cyanico		<u> </u>		9/30/ m	o j
Color Before:	LT.YELLOW	Clarity Before: _C	LEAR	Textur	e:	
Color After:	LT.YELLOW	Clarity After: C	LEAR	Artifac	ts:	n andre american methodologica

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Comments:

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#### EPA SAMPLE NO.

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Lab Name: P	ROJ AAH GCAL	Contra	ct:				
Lab Code: LA024 Case No.:		SAS No.:		SDG No	SDG No.:		
Matrix: ( soil / w	vater) Water	Lab Sam	ple ID: 204032	20802			
Level: ( low / m	ed)		***************************************				
	·	Date Rec	ceived: <u>03/19/0</u>	94			
% Solids:	<del></del>						
Concentration	Units (ug/L or mg/kg dry weigl	ht) : ug/L					
CAS No.	Analyte	Concentration	С	Q	М	]	
7429-90-5	Aluminum	7810		<u> </u>	Р		
7440-36-0	Antimony	6.6	В		Р	1	
7440-38-2	Arsenic	6.9	В		Ρ	17	
7440-39-3	Barium	484	<del></del>		Р	1	
7440-41-7	Beryllium	0.8	В		Р	1	
7440-43-9	Cadmium	0.9	В		Р	1	
7440-70-2	Calcium	281000		<u> </u>	Р	1	
7440-47-3	Chromium	12.9			Р	1	
7440-48-4	Cobalt	7.0	В		Р		
7440-50-8	Copper	35.5		55/	Р		
7439-89-6	Iron	20200			Р		
7439-92-1	Lead	9.2		J.	Р		
7439-95-4	Magnesium	54000			Р		
7439-96-5	Manganese	1590			Р		
7439-97-6	Mercury	0.1	U		AV		
7440-02-0	Nickel	17.8	В		Р		
7440-09-7	Potassium	4510	В		Р	]	
7782-49-2	Selenium	4.4	U	N	Р	UJ	
7440-22-4	Silver	0.4	U		P		
7440-23-5	Sodium	31200			Р	]	
7440-28-0	Thallium	2.6	U		Р		
7440-62-2	Vanadium	15.3	В		Р	_	
7440-66-6	Zinc	51.2		<b></b>	Р	] [	
57-12-5	Cyanide	1.5	В		AS	]	
					4/	73,105	
Color Before:	LT.YELLOW		LEAR	_ Texture			
Color After:	LT.YELLOW	Clarity After: CI	LEAR	Artifact	s:	<u> </u>	
Comments:							

FORM I - IN

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### EPA SAMPLE NO.

INORGANIC	ANALYSIS	DATA	SHEET
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Lab Name: PROJ AAH GCAL	Contract:	
Lab Code: LA024 Case No.;	SAS No.:	SDG No.:
Matrix: ( soil / water ) Water	Lab Sample ID: 20403220803	
Level: ( low / med )	Date Received: 03/19/04	
% Solids:	**************************************	,

Concentration Units (ug/L or mg/kg dry weight) :

-

ug/L

CAS No.	Analyte	Concentration	С	Q	M	7
7429-90-5	Aluminum	816		₽́	P	1
7440-36-0	Antimony	4.7	В		Р	1
7440-38-2	Arsenic	2.9	U		Р	1
7440-39-3	Barium	55.0	В		P	1
7440-41-7	Beryllium	0.2	В		P	7
7440-43-9	Cadmium	0.2	U		P	1
7440-70-2	Calcium	243000			P	1
7440-47-3	Chromium	5.5	В	<u> </u>	P	1
7440-48-4	Cobalt	2.1	В		Р	7
7440-50-8	Copper	10.1	В	Æ	P	1
7439-89-6	fron	3020			P	7
7439-92-1	Lead	1.5	U	F	Р	7
7439-95-4	Magnesium	51500			Р	1
7439-96-5	Manganese	224			Р	7
7439-97-6	Mercury	0.1	U		AV	7
7440-02-0	Nickel	6.7	В		Р	7
7440-09-7	Potassium	32500			P	1 .
7732-49-2	Selenium	4.4	U	N	Р	\U_
7440-22-4	Silver	0.4	U		Р	
7440-23-5	Sodium	162000			Р	7
7440-28-0	Thallium	2.6	U		Р	1
7440-62-2	Vanadium	2.3	В		P	1
7440-66-6	Zinc	7.9	В	Æ	P	1 1
57-12-5	Cyanide	1.0	В		AS	7 ~

Color Before:	DK.BROWN	Clarity Before:	CLEAR	Texture:	
Color After:	DK.BROWN	Clarity After:	CLEAR	Artifacts:	
Comments:					

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#### EPA SAMPLE NO.

INORGANIC	ANALYSIS	DATA	SHEET
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		_
SKGV	V60100	9

	OJ AAH GCAL	Contra	ct:				
Lab Code: LA0	24 Case No.:	SAS N	o.:		SDG No.:		
Matrix: ( soil / wat	ter) Water	Lab Sam	ple ID:	20403220804			
Level: ( low / med	d)	Date Red	ceived:	03/19/04			
% Solids:			,				
Concentration U	Inits (ug/L or mg/kg dry wei	ght): ug/L					
CAS No.	Analyte	Concentration	С		Q	М	]
7429-90-5	Aluminum	32500			F.	Р	
7440-36-0	Antimony	9.7	В			Р	
7440-38-2	Arsenic	17.0				Р	11
7440-39-3	Barium	129	В			Р	1
7440-41-7	Beryllium	2.5	В			Р	1
7440-43-9	Cadmium	2.8	В			Р	
7440-70-2	Calcium	492000			· · · · · · · · · · · · · · · · · · ·	Р	
7440-47-3	Chromium	59.6				Р	
7440-48-4	Cobalt	36.1	В			Р	
7440-50-8	Copper	54.5			P	Р	
7439-89-6	Iron	74200				P	1
7439-92-1	Lead	40.4			Z	Р	
7439-95-4	Magnesium	112000				Р	1
7439-96-5	Manganese	1410				Р	1
7439-97-6	Mercury	0.1	В			AV	1
7440-02-0	Nickel	67.3				Р	1
7440-09-7	Potassium	11800				Р	1
7782-49-2	Selenium	4.4	U		N	P	UJ
7440-22-4	Silver	0.4	Ü			Р	
7440-23-5	Sodium	44600				Р	1
7440-28-0	Thallium	11.0			-	Р	T
7440-62-2	Vanadium	51.2				Р	1 •
7440-66-6	Zinc	180			R.	Р	1

 Cclor Before:
 LT.BROWN
 Clarity Before:
 CLEAR
 Texture:

 Cclor After:
 LT.BROWN
 Clarity After:
 CLEAR
 Artifacts:

Comments:

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### EPA SAMPLE NO.

SK	GW62A1009	

Lab Name: PROJ AAH GCAL	Contract:						
Lab Code: LA024 Case No.:	SAS No.:	SDG No.:					
Matrix: ( soil / water ) Water	Lab Sample ID: 20403220805						
Level: ( low / med )	Date Received: 03/19/04						
% Solids:	was the state of t						
Concentration Units (ug/L or mg/kg dry weight): ug/L							

CAS No.	Analyte	Concentration	С	Q	M	7
7429-90-5	Aluminum	13200		سظر	Р	7
7440-36-0	Antimony	6.1	В		Р	7
7440-38-2	Arsenic	8.3	В		P	「丁
7440-39-3	Barium	361			P	7
7440-41-7	Beryllium	1.1	В		P	7
7440-43-9	Cadmium	1.6	В		Р	7
7440-70-2	Calcium	337000			P	7
7440-47-3	Chromium	29.6			Р	7
7440-48-4	Cobalt	15.6	В		Р	7
7440-50-8	Copper	42.7		سطِ	Р	7
7439-89-6	Iron	35000			P	7
7439-92-1	Lead	39.5		X	P	7
7439-95-4	Magnesium	88000			P	7
7439-96-5	Manganese	1460		<u> </u>	P	7
7439-97-6	Mercury	0.1	U		AV	
7440-02-0	Nickel	35.4	В		Р	7
7440-09-7	Potassium	13900			Р	٦.
7782-49-2	Selenium	4.4	U	N	Р	41
7440-22-4	Silver	0.4	Ü	·	Р	7
7440-23-5	Sodium	123000	·		Р	7
7440-28-0	Thallium	6.9	В		P	77
7440-62-2	Vanadium	23.0	В		P	<b>⊣ ~</b>
7440-66-6	Zinc	101		,£	Р	77
57-12-5	Cyanide	1.0	В		AS	7

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Color Before:	COLORLESS	Clarity Before:	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After:	CLEAR	Artifacts:	Ministryappropriate area and solver the APP has a solvening the solution as
Comments:					

EPA SAMPLE NO.

	INORGANIC	ANALYSIS	DATA	SHEET
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SKGW64	1000
SKGVVO4	1009

				SKU	500641009	
Lab Name: P	ROJ AAH GCAL	Conf	tract:			
Lab Code: LA	024 Case No.:	SAS	No.:	SDG	No.:	
Matrix: ( soil / w	vater) <u>Water</u>	Lab Sa	imple ID: 204	03220806		····
Level: ( low / me	ed )	Date F	Received: 03/	19/04		
% Solids:				-		
Concentration	Units (ug/L or mg/kg dry weigh	nt) : ug/L				
CAS No.	Analyte	Concentration	С	Q	М	]
7429-90-5	Aluminum	3080		Æ	Р	1
7440-36-0	Antimony	4.9	В		P	]
711000	A	0.0				1

CAS No.	Analyte	Concentration	С	Q	М	
7429-90-5	Aluminum	3080		X.	Р	1
7440-36-0	Antimony	4.9	В		P	1
7440-38-2	Arsenic	2.9	U		Р	1
7440-39-3	Barium	37.1	В		P	1
7440-41-7	Beryllium	0.3	В		Р	1
7440-43-9	Cadmium	0.2	U		Р	1
7440-70-2	Calcium	213000			P	1
7440-47-3	Chromium	7.0	В		P	1
7440-48-4	Cobalt	5.4	В		Р	1
7440-50-8	Copper	11.3	В	,£	P	1
7439-89-6	Iron	7520			Р	1
7439-92-1	Lead	1.5	Ü	عر	Р	1
7439-95-4	Magnesium	66000			P	1
7439-96-5	Manganese	1650			Р	1
7439-97-6	Mercury	0.1	Ü		AV	1
7440-02-0	Nickel	16.4	В		Р	1
7440-09-7	Potassium	15000			Р	1
7782-49-2	Selenium	4.4	υ	N	Р	UJ
7440-22-4	Silver	0.4	U		Р	
7440-23-5	Sodium	59800	~		Р	
7440-28-0	Thallium	2.6	U		Р	1
7440-62-2	Vanadium	5.3	В		Р	1
7440-66-6	Zinc	13.6	В	,Æ	Р	J
57-12-5	Cyanide	1.3	В		AS	1
						~1

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Color Before:	COLORLESS	Clarity Before:	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After:	CLEAR	Artifacts:	
Comments:					

# EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHE	NORGANIC	ANALYSIS	DATA	SHEET
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SKGW06R1009 (DISS)

Lab Name: PROJ AAH GCAL	Contract:	
Lab Code: LA024 Case No.:	SAS No.:	SDG No.:
Matrix: ( soil / water ) Water	Lab Sample ID: 20403220808	
Level: ( low / med )	Date Received: 03/19/04	
% Solids:		

Concentration Units (ug/L or mg/kg dry weight):

ug/L

CAS No.	Analyte	Concentration	С	Q	M	7
7429-90-5	Aluminum	25.8	Ü	<del></del>	Р	1
7440-36-0	Antimony	3.7	U		Р	1
7440-38-2	Arsenic	2.9	U	·····	Р	7
7440-39-3	Barium	266			Р	7
7440-41-7	Beryllium	0.1	U		Р	1
7440-43-9	Cadmium	0.2	U		P	7
7440-70-2	Calcium	189000			Р	1
7440-47-3	Chromium	1.2	В		Р	7
7440-48-4	Cobalt	0.4	U		P	7
7440-50-8	Copper	1.2	U		P	7
7439-89-6	Iron	22.0	В	R	Р	7
7439-92-1	Lead	1.5	U		Р	7
7439-95-4	Magnesium	30000			P	7
7439-96-5	Manganese	69.5		E	Р	٦-
7439-97-6	Mercury	0.1	U		AV	
7440-02-0	Nickel	1.7	В		Р	
7440-09-7	Potassium	2060	В		P	
7782-49-2	Selenium	4.4	U	N	Р	Īι
7440-22-4	Silver	0.4	U		P	7
7440-23-5	Sodium	20700			P	7
7440-28-0	Thallium	2.6	U		P	7
7440-62-2	Vanadium	1.6	В		P	7
7440-66-6	Zinc	0.6	U	<del></del>	P	٦ (

Color Before:	COLORLESS	Clarity Before:	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After:	CLEAR	Artifacts:	
Comments:					

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#### EPA SAMPLE NO.

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SKGW07R1009 (DISS)

Lab Name:	PROJ AA	H GCAL	Contract:			
Lab Code:	LA024	Case No.:	SAS No.:		SDG No.:	
Matrix: ( soil	/ water )	Water	Lab Sample ID:	20403220809		
Level: ( low /	med)	and the same of th	Date Received:	03/19/04		
% Solids:		_				
Concentrati	on Units (u	g/L or mg/kg dry weight) :	ug/L			

CAS No.	Analyte	Concentration	С	Q	М	]
7429-90-5	Aluminum	25.8	Ü	<del></del>	P	7
7440-36-0	Antimony	3.7	Ü		P	1
7440-38-2	Arsenic	2.9	U		Р	1
7440-39-3	Barium	113	В		P	7
7440-41-7	Beryllium	0.1	В		Р	1
7440-43-9	Cadmium	0.2	U		Р	7
7440-70-2	Calcium	185000			Р	1
7440-47-3	Chromium	1.1	В		Р	7
7440-48-4	Cobalt	0.7	В		P	7
7440-50-8	Copper	1.2	U		P	7
7439-89-6	Iron	32.9	В	معر	P	7
7439-92-1	Lead	1.5	U		Р	7
7439-95-4	Magnesium	26300			Р	1
7439-96-5	Manganese	914		E	Р	75
7439-97-6	Mercury	0.1	U		AV	7
7440-02-0	Nickel	2.2	В		P	1
7440-09-7	Potassium	2350	В		Р	7
7782-49-2	Selenium	4.4	U	N	Р	745
7440-22-4	Silver	0.4	U		P	7
7440-23-5	Sodium	25200			P	1
7440-28-0	Thallium	2.6	U		P	7
7440-62-2	Vanadium	0.8	U	-	P	1
74 <sup>4</sup> 0-66-6	Zinc	0.6	U	<del></del>	P	us

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Color Before:	COLORLESS	Clarity Before:	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After:	CLEAR	Artifacts:	
Comments:					

# INORGANIC ANALYSIS DATA SHEET

### EPA SAMPLE NO.

SKGW591009 (DISS)	

Lab Name: P	ROJ AAH GCAL	Con	tract:			
Lab Code: LA	.024 Case No.:	SAS	No.:	SDG	No.:	
Matrix: ( soil / w	vater) Water	Lab S	ample ID: 204032	20810		
Level: ( low / me	ed)		Received: 03/19/0			
% Solids:		24.0		<u>- · </u>		
Concentration	Units (ug/L or mg/kg dry weig	ht): ug/L				
CAS No.	Analyte	Concentration	С	Q	M	
7429-90-5	Aluminum	27.2	В		P	
7440-36-0	Antimony	3.7	U		P	
7440-38-2	Arsenic	2.9	U		P	
7440-39-3	Barium	21.8	В	<del></del> _	P	
7440-41-7	Beryllium	0.1	В	<del></del>	P	
7440-43-9	Cadmium	0.2	U	· · · · · · · · · · · · · · · · · · ·	P	
7440-70-2	Calcium	239000	† †	<del></del>	P	
7440-47-3	Chromium	1.8	В		P	
7440-48-4	Cobalt	0.4	В		P	
7440-50-8	Copper	2.1	В		P	
7439-89-6	Iron	28.8	В	7	P	
7439-92-1	Lead	1.5	Ü		P	
7439-95-4	Magnesium	49000			P	
7439-96-5	Manganese	4.5	В	Ē	T P J	
7439-97-6	Mercury	0.1	<del>  U  </del>	<del></del>	AV 3	
7440-02-0	Nickel	2.6	В	·	P	
7440-09-7	Potassium	32800	<del> </del>		P	
7782-49-2	Selenium	4.4	U	N	PUS	
7440-22-4	Silver	0.4	<del>                                     </del>		P	
7440-23-5	Sodium	166000			P	
7440-28-0	Thallium	3.1	В		PJ	
7440-62-2	Vanadium	1.4	В		<del> </del>	
7440-66-6	Zinc	3.1	В		PJ	
					9/3×10	ς *-
Color Before:	COLORLESS		CLEAR	Textu	ıre:	1000 × 10
Co or After:	COLORLESS	Clarity After:	CLEAR	Artifa	cts:	
Comments:						

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#### EPA SAMPLE NO.

INORGANIC ANALYSIS DA	TA SHEET
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SKGW62A1009 (DISS)

Lab Name: P	ROJ AAH GCAL	Contr	act:			
Lab Code: LA	.024 Case No.:	SAS	No.:	SDG N	lo.:	
Matrix: ( soil / w	rater) Water	Lab Sai	mple ID: 20403	220812		
Level: ( low / me	ed )	Date R	eceived: 03/19/	04		
% Solids:						
Concentration	Units (ug/L or mg/kg dry weigh	nt): ug/L				
CAS No.	Analyte	Concentration	С	Q	M	
7429-90-5	Aluminum	25.8	U		P	
7440-36-0	Antimony	3.7	U	<del></del>	Р	
7440-38-2	Arsenic	2.9	U		Р	
7440-39-3	Barium	111	В	· · · · · · · · · · · · · · · · · · ·	Р	
7440-41-7	Beryllium	0.1	U		Р	
7440-43-9	Cadmium	0.2	Ū		P	
7440-70-2	Calcium	122000			Р	
7440-47-3	Chromium	2.1	В	<del></del>	Р	
7440-48-4	Cobalt	0.5	В		Р	
7440-50-8	Copper	1.2	U		Р	
7439-89-6	Iron	14.1	U	J.	Р	
7439-92-1	Lead	1.5	U		Р	
7439-95-4	Magnesium	48700			Р	
7439-96-5	Manganese	164		Ē	Р	丁
7439-97-6	Mercury	0.1	U		AV	
7440-02-0	Nickel	1.8	В		Р	
7440-09-7	Potassium	11100			Р	_
7782-49-2	Selenium	4.4	U	N	P	UJ
7440-22-4	Silver	0.4	υ	<del></del>	Р	
7440-23-5	Sodium	120000		<del>·····</del>	Р	
7440-28-0	Thallium	2.6	U	<del></del>	P	
7440-62-2	Vanadium	1.6	В		Р	
7440-66-6	Zinc	0.6	U		Р	UJ
					9/3	ادان سالا مم
Color Before:	COLORLESS	Clarity Before:	CLEAR	Textu	***************************************	
Color After:	COLORLESS	Clarity After:	CLEAR	Artifac	cts:	
Comments:						

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### EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHE	INORGANIC	ANALYSIS	DATA	SHEET
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SKG	W641	2001	(DISS)	

Lab Name: Pl	ROJ AAH GCAL	Contra	ct:		<del> </del>	
Lab Code: <u>LA</u>	024 Case No.:	SAS N	o.:	SDG N	lo.:	
Matrix: ( soil / w	ater) Water	Lab Sam	ple ID: 2040322	20813		
Level: ( low / me	ed )					<del>,</del>
% Solids:		Date Red	ceived: 03/19/04	4		
% Solius.						
Concentration	Units (ug/L or mg/kg dry weig	ht): ug/L				
CAS No.	Analyte	Concentration	С	Q	M	7
7429-90-5	Aluminum	25.8	U		P	7
7440-36-0	Antimony	3.7	U		Р	1
7440-38-2	Arsenic	2.9	U	· · · · · · · · · · · · · · · · · · ·	Р	7
7440-39-3	Barium	28.3	В		Р	7
7440-41-7	Beryllium	0.1	В		Р	1
7440-43-9	Cadmium	0.2	U	<del></del>	P	7
7440-70-2	Calcium	176000		<del></del>	P	7
7440-47-3	Chromium	1.7	В		Р	
7440-48-4	Cobalt	1.8	В		Р	1
7440-50-8	Copper	1.2	U		P	1
7439-89-6	Iron	14.1	U	سطر	P	1
7439-92-1	Lead	1.5	<del>U</del>		Р	7
7439-95-4	Magnesium	56700			P	
7439-96-5	Manganese	1170		E	Р	7 万
7439-97-6	Mercury	0.1	U		AV	1
7440-02-0	Nickel	7.8	В	<del></del>	P	1
7440-09-7	Potassium	12900			Р	
7782-49-2	Selenium	4.4	U	N	Р	้นร
7440-22-4	Silver	0.4	U	<del></del>	Р	1
7440-23-5	Sodium	53900			P	
7440-28-0	Thallium	2.6	U		P	7
7440-62-2	Vanadium	0.8	U		Р	7
7440-66-6	Zinc	0.6	U		Р	us
						9/3-1-5 ma
Color Before:	COLORLESS	-	LEAR	Textu		was a no a source water popular and stack to a se
Color After:	COLORLESS	Clarity After: C	LEAR	Artifa	cts:	

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Comments:

### INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name:	GCAL		Contract:	
Lab Code:	LA024	Case No.:	SAS No.:	SDG No.: 204031909
Calibration :	Source:	106-61-2 CPI	Instrument ID: ICP5	ICAL ID: 2
			Date Analyzed: 03/25/04	Time: 1050

### CRDL STANDARD

Analyte	True	Found	CAL %R	Units	Method	Туре
Antimony	120	123	103	ug/L	ILM04.1 - CLP Metals	P
Arsenic	20.0	24.7	(123.7	ug/L	ILM04.1 - CLP Metals	Р
Beryllium	10.0	9.60	96	ug/L	ILM04.1 - CLP Metals	Р
Cadmium	10.0	9.40	94	ug/L	ILM04.1 - CLP Metals	Р
Chromium	20.0	19.9	99	ug/L	ILM04.1 - CLP Metals	Р
Cobalt	100	95.2	95	ug/L	ILM04.1 - CLP Metals	Р
Copper	50.0	42.0	84	ug/L	ILM04.1 - CLP Metals	Р
Lead	6.00	5.80	97	ug/L	ILM04.1 - CLP Metals	Р
Manganese	30.0	29.2	97	ug/L	ILM04.1 - CLP Metals	Р
Nickel	80.0	78.0	97	ug/L	ILM04.1 - CLP Metals	Р
Selenium	10.0	12.2	122	ug/L	ILM04.1 - CLP Metals	Р
Silver	20.0	19.6	98	ug/L	ILM04.1 - CLP Metals	Р
Thallium	20.0	25.2	(12 <b>s</b>	ug/L	ILM04.1 - CLP Metals	Р
Vanadium	100	97.2	97	ug/L	ILM04.1 - CLP Metals	Р
Zinc	40.0	29.5	<b>(4)</b>	ug/L	ILM04.1 - CLP Metals	Р

## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name:	GCAL		Contract:	
Lab Code:	LA024	Case No.:	SAS No.:	SDG No.: 204031909
Calibration \$	Source:	106-61-2 CPI	Instrument ID: ICP5	ICAL ID: 2
			Date Analyzed: 03/25/0	)4 Time: 1340

## CRDL STANDARD

Analyte	True	Found	CAL %R	Units	Method	Туре
Antimony	120	124	103	ug/L	ILM04.1 - CLP Metals	Р
Arsenic	20.0	21.2	106	ug/L	ILM04.1 - CLP Metals	Р
Beryllium	10.0	9.60	96	ug/L	ILM04.1 - CLP Metals	Р
Cadmium	10.0	9.30	93	ug/L	ILM04.1 - CLP Metals	Р
Chromium	20.0	20.2	101	ug/L	ILM04.1 - CLP Metals	Р
Cobalt	100	94.0	94	ug/L	ILM04.1 - CLP Metals	Р
Copper	50.0	40.7	81	ug/L	ILM04.1 - CLP Metals	Р
l.ead	6.00	5.80	96	ug/L	ILM04.1 - CLP Metals	Р
Manganese	30.0	29.5	98	ug/L	ILM04.1 - CLP Metals	Р
Nickel	80.0	77.5	97	ug/L	ILM04.1 - CLP Metals	Р
Selenium	10.0	10.0	100	ug/L	ILM04.1 - CLP Metals	Р
Silver	20.0	19.2	96	ug/L	ILM04.1 - CLP Metais	Р
Thallium	20.0	29.3	(47)	ug/L	ILM04.1 - CLP Metals	Р
Vanadium	100	98.4	98	ug/L	ILM04.1 - CLP Metals	Р
Zinc	40.0	28.6	<b>(</b> 71)	ug/L	ILM04.1 - CLP Metals	Р

## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name:	GCAL		Contract:	········
Lab Code:	LA024	Case No.:	SAS No.:	SDG No.: 204031909
Calib ation	Source:	106-61-2 CPI	Instrument ID: ICP5	ICAL ID: 2
			Date Analyzed: 03/25/04	Time: 1635

# CRDL STANDARD

Analyte	True	Found	CAL %R	Units	Method	Туре
Antimony	120	125	104	ug/L	ILM04.1 - CLP Metals	P
Arsenic	20.0	24.0	120	ug/L	ILM04.1 - CLP Metals	Р
Bery lium	10.0	9.50	95	ug/L	JLM04.1 - CLP Metals	Р
Cadrnium	10.0	9.50	95	ug/L	ILM04.1 - CLP Metals	Р
Chromium	20.0	19.7	98	ug/L	ILM04.1 - CLP Metals	Р
Cobalt	100	95.2	95	ug/L	ILM04.1 - CLP Metals	Р
Copper	50.0	39.5	(79)	ug/L	ILM04.1 - CLP Metals	Р
Leac	6.00	6.10	102	ug/L	ILM04.1 - CLP Metals	Р
Manganese	30.0	29.2	97	ug/L	ILM04.1 - CLP Metals	Р
Nickel	80.0	77.9	97	ug/L	ILM04.1 - CLP Metals	Р
Selenium	10.0	13.9	(39)	ug/L	ILM04.1 - CLP Metals	Р
Silver	20.0	18.8	94	ug/L	ILM04.1 - CLP Metals	Р
Thallium	20.0	26.1	(30)	ug/L	ILM04.1 - CLP Metals	Р
Vanadium	100	97.2	97	ug/L	ILM04.1 - CLP Metals	P
Zinc	40.0	27.6	<b>(</b> 69)	ug/L	ILM04.1 - CLP Metals	Р

# U.S. EPA - CLP 3 BLANKS

Lab Name:	PROJ AAH GCAL		Contract:		
Lab Code:	LA024	Case No.:	SAS No.:	 SDG No.	***************************************

Preparation Blank Matrix: (soil / water) Water

N Lagran

Preparation Blank Concentration Units: (ug/L / mg/kg) ug/L

,							<u> </u>		<del>,</del> .		
	Initial								Prepa	-	
l	Calib.		Contin	uing	Calibrati	on B	lank (ug/l	_)	ration		
Analyte	Blank								Blank		1
7 mary to	(ug/L)	С	1	С	2	С	3	С		С	М
Aluminum	25.8	U	25.8	Ū	25.8	Ū	25.8	U	25.800	Tu	P
Antimony	9.2	В	7.7	В	3.7	Ū	3.9	В	4.334	В	Р
Arsenic	2.9	U	2.9	U	4.5	В	4.5	В	2.900	U	P
Barium	0.3	U	0.3	Ū	0.3	U	0.3	U	0.604	В	Р
Beryllium	0.1	U	0.1	Ü	0.1	U	0.1	Ū	0.100	U	Р
Cadmium	1.3	В	1.6	В	0.2	U	2.8	В	0.470	В	Р
Calcium	7.5	U	7.5	U	9.8	В	7.5	U	9.654	В	Р
Chromium	0.8	U	0.8	U	0.8	U	0.8	Ü	0.800	Ü	Р
Cobalt	0.4	U	0.4	Ü	0.4	U	0.6	В	0.793	В	Р
Copper	16.7	В	19.8	В	4.5	В	12.8	В	20.742	В	Р
Iron	14.1	Ū	14.1	Ü	14.1	U	14.1	U	17.689	В	P
Lead	2.2	В	1.5	U	1.5	U	1.5	U	1.500	U	P
Magnesium	36.7	U	36.7	U	36.7	U	81.2	В	36.700	U	P
Mariganese	0.2	U	0.2	Ū	0.2	U	0.2	U	0.200	U	Р
Mercury	0.1	U	0.1	U	0.1	U	0.1	U	0.100	U	AV
Nickel	0.7	U	0.7	U	0.7	U	1.2	В	1.140	В	Р
Potassium	42.1	U	49.4	В	42.1	U	42.1	U	42.100	Ü	Р
Selenium	4.4	U	4.4	Ü	4.4	U	4.4	U	4.400	В	Р
Silver	0.4	U	0.4	Ü	-0.6	В	-0.7	В	0.400	U	P
Sodium	45.4	U	45.4	U	45.4	U	45.4	U	89.366	В	Р
Thallium	4.6	В	8.0	В	2.6	U	4.4	В	3.425	В	Р
Vanadium	0.8	U	0.9	В	1.2	В	0.9	В	1.283	В	Р
Zinc	0.6	U	2.5	В	-4.5	В	0.6	U	11.747	В	Р
Cyanide	0.5	U	0.5	Ū	0.5	U	0.5	U	0.500	U	AS

FORM III - IN

ILM04.1

# U.S. EPA - CLP 3 BLANKS

1444

Lab Name:	PROJ AAH GCAL		Contract:	
Lab Code:	LA024	Case No.:	SAS No.:	SDG No.:
Preparation	Blank Matrix: (soil /	water) Water		

	Initial								Prepa	3-	1
	Calib.	Calib. Continuing Calibration Blank (ug/L)						ration		i	
Analyte	Blank								Blank		
,a.y to	(ug/L)	С	4	С	5	С	6	С	İ	С	М
Aluminum		Τ	25.8	Τυ	25.8	Ū			25.800	U	P
Antimony		T	3.7	U	5.8	В	1		3.700	Ū	Р
Arsenic			2.9	U	3.3	В			2.900	U	Р
Barium			0.3	U	0.3	Ū			0.300	U	Р
Beryllium		1	0.1	U	0.1	U			0.100	U	P
Cadmium			0.2	U	2.4	В			0.785	В	P
Calcium		Τ	7.5	U	7.5	U			15.883	В	Р
Chromium		Τ	0.8	U	0.8	U			0.800	U	Р
Cobalt		T	0.4	U	0.5	В			0.859	В	P
Copper			1.4	B	11.1	В			9.684	В	P
iron			14.1	U	14.1	U			17.257	В	P
Lead			1.5	υ	1.5	U			1.500	U	P
Magnesium		1	36.7	Ū	116.7	В			57.052	В	Р
Manganese		1	0.2	U	0.2	Ū			0.200	U	P
Mercury		T	0.1	U					0.100	U	AV
Nickel		Τ	0.7	U	0.7	U			1.690	В	Р
Potassium			42.1	U	42.1	Ū			42.100	U	Р
Selenium	-	T	4.4	U	4.4	Ü			4.400	В	Р
Silver		Τ	0.4	Ū	-0.4	В			-0.593	В	P
Sod um			45.4	U	45.4	U			69.029	В	Р
Thallium			3.3	В	4.5	В			3.384	В	Р
Vanadium			0.8	U	0.8	U		1	0.800	U	P
Zinc		T	-6.7	В	-2.2	В			8.8059	В	Р
Cyanide											AS

Preparation Blank Concentration Units: (ug/L / mg/kg) ug/L

## MS/MSD RECOVERY

Lab Name:	PROJ AAH GCAL		Contract:		
Lab Code:	LA024	Case No.:	SAS No.:		SDG No.:
Matrix Spike	e - EPA Sample No:	SKGW611009			

SAMPLE NO. : 20403190905

COMPOUND	UNITS	SPIKE ADDED	SAMPLE CONCENTRATION	MS CONCENTRATION	MS % REC	#	QC.	LIMITS
Aluminum	ug/L	2000	452	2520	103		75	- 125
Antimony	ug/L	100	4.8	116	111		75	- 125
Arsenic	ug/L	40	2.9	50	125 18		75	- 125
Barium	ug/L	2000	44.1	2120	104		75	- 125
Beryll um	ug/L	50	.2	53.8	107		75	- 125
Cadmium	ug/L	50	.3	50.4	100		75	- 125
Chromium	ug/L	200	1.9	209	104		75	- 125
Cobali	ug/L	500	1.7	498	99		75	- 125
Copper	ug/L	250	22.2	279	103		75	- 125
Iron	ug/L	1000	2430	3390	95		75	- 125
Lead	ug/L	20	22.1	42.2	100		75	- 125
Manganese	ug/L	500	527	1060	106		75	- 125
Mercury	ug/L	5	.1	5.1	103		75	- 125
Nickel	ug/L	500	4.3	503	100		75	- 125
Selenium	ug/L	10	4.4	4.5	45	N	75	- 125
Silver	ug/L	50	.4	51.5	103		75	- 125
Thallium	ug/L	50	2.6	48.3	97		75	- 125
Vanadium	ug/L	500	2.1	531	106		75	- 125
Zinc	ug/L	500	7.3	480	95		75	- 125
Cyanide	ug/L	100	.5	86.1	86		75	- 125

# Column to be used to flag recovery and RPD values with an aste	risk
* Values outside of QC limits	

RPD:_	0	out	of	0	outs	side lim	its
Spike R	e:COV	erv.	1	n	ut of	20	outside limits

## MS/MSD RECOVERY

Lab Name:	PROJ AAH GCAL			Contract:					
Lab Code:	LA024	Case No.:	SAS No.:		SDG No.:				
Matrix Spike	e - EPA Sample No:	SKGW611009(DISS)							

SAMPLE NO. : 20403190914

COMPOUND		SPIKE ADDED	SAMPLE CONCENTRATION	MS CONCENTRATION	MS % REC	#	QC.	LIMITS
Aluminum	ug/L	2000	25.8	2150	107	Ţ	75	- 125
Antimony	ug/L	100	4.5	117	113	1	75	- 125
Arsenic	ug/L	40	2.9	48.4	X21114		75	- 125
Barium	ug/L	2000	39.4	2110	104		75	- 125
Beryllium	ug/L	50	.1	54.3	108		75	- 125
Cadmium	ug/L	50	.3	50.1	100		75	- 125
Chrornium	ug/L	200	1.1	208	104		75	- 125
Cobalt	ug/L	500	1.4	489	98	i	75	- 125
Copper	ug/L	250	8	272	106		75	- 125
Iron	ug/L	1000	187	1210	103		75	- 125
Lead	ug/L	20	1.5	18.7	93		75	- 125
Manganese	ug/L	500	485	991	101		75	- 125
Mercury	ug/L	5	.1	4.1	81		75	- 125
Nickel	ug/L	500	4.2	491	97		75	- 125
Selenium	ug/L	10	4.4	7.3	73	N	75	- 125
Silver	ug/L	50	.4	52.9	106		75	- 125
Thallium	ug/L	50	2.6	53.5	107		75	- 125
Vanadium	ug/L	500	1.2	532	106		75	- 125
Zinc	ug/L	500	.6	467	93		75	- 125

# Column to be	used to flag recover	y and RPD values with	n an asterisk

\* Values outside of QC limits

RPD: 0 out of 0 outside limits

Spike Recovery: 1 out of 19 outside limits

# 5B

# POST DIGEST SPIKE SAMPLE RECOVERY

	S				

SKGW611009PDS

ab Name:	PROJ AAH GCAL			
_ab Code: ˌ	LA024	Case No.:	Contract:	
Matrix: ( soil	/water) Water		SAS No.:	SDG No.:
% Solids for	Sample:		Level: ( low / med )	

Concentration Units (ug/L or mg/kg dry weight): ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	Sample		Sample Result (SR) C		% R	Q	М
Aluminum		527		25.8	U		0		Р
Antimony		142		4.8	В	120	114		Р
Arsenic		27.2		2.9	U	20	136		Р
Barium		44.2	В	.3	U		0		Р
Beryllium		11		.2	В	10	109		Р
Cadmium		10.2	T	.3	В	10	99		P
Calcium		185000		7.5	U		0		Р
Chromium		22.7		1.9	В	20	104		Р
Cobalt		101	1	1.7	В	100	100		Р
Copper		69.1	1	22.2	В	50	94		Р
Iron		2400	T	14.1	Ū		0		Р
Lead		28	1	22.1	1	6	97	1	Р
Magnesium		29300	1	36.7	Ü		0		Р
Manganese		554		527		30	90	1	Р
Nickel		82.6	1	4.3	В	80	98		Р
Potassium		6960	1	42.1	U		0		Р
Selenium		4.9	В	4.4	ΰ	10	49		Р
S Iver		20.3	$\top$	.4	U	20	101		Р
Sodium		27000		45.4	U		0	<u> </u>	Р
Thallium		17.4	$\top$	2.6	U	20	87		Р
Vanadium		110	$T^-$	2.1	В	100	108	1	Р
Zinc		44.3	1	7.3	В	40	93	<b>†</b>	Р

Comments:

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# POST DIGEST SPIKE SAMPLE RECOVERY

E E \ A	CAMPLENO	
EFA	SAMPLE NO.	

ĺ	SKGW611009(DISS)PDS	
ļ		

_ab Name:	PROJ AAH GCAL			
Lab Code:	LA024	Case No.:	Contract:	
Matrix: ( soil	/water) Water		SAS No.:	SDG No.:
% Solids for	r Sample:		Level: ( low / med )	

Concentration Units (ug/L or mg/kg dry weight): ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	С	Sample Result (SR)	С	Spike Added (SA)	% R	Q	М
Aluminum		25.8	U	25.8	U		0		Р
Antimony		136	1	4.5	В	120	110		Р
Arsenic		26.1		2.9	U	20	131		Р
Barium		39.9	В	.3	U		0		Р
Beryllium		10.9		.1	В	10	107		Р
Cadmium		10		.3	В	10	97		Р
Calcium		191000		7.5	U		0		Р
Chromium		21.6	1	1.1	В	20	103	$\Box$	Р
Cobalt		99		1.4	В	100	98		Р
Copper		60.1	1	8	В	50	104		Р
Iron		181	T-	14.1	Ū		0		Р
Lead		4	1	1.5	U	6	67	1	Р
Magnesium		29000		36.7	U		0		Р
Manganese		524	T	485	7	30	128		Р
Nickel		78.2	$\top$	4.2	В	80	93		Р
Potassium		6970	T	42.1	U		0		Р
Selenium		4.4	U	4.4	U	10	0		Р
Silver		20.3		.4	U	20	102		Р
Sodium		28000	<u> </u>	45.4	U		0		Р
Thallium		19.8		2.6	U	20	99		Р
Vanadium	1 1	108	$\top$	1.2	В	100	107		Р
Zinc		40.8	$\top$	.6	U	40	102	<del>                                     </del>	Р

Comments:

# U.S. EPA - CLP 6 DUPLICATES

	C A	B A D I	Ε.	NIC
EPA	SA	IVIPL	_=	INC

SK	G۷	/61	DU:	Ρ1	009

Lab Name: PROJ AAH GCAL		
Lab Code: LA024 Case No.:	Contract:	
Matrix: ( soil / water ) Water	SAS No.: SDG No.:	
	Level: ( low / med )	
% Solids for Sample:	% Solids for Duplicate:	

Concentration Units (ug/L or mg/kg dry weight) ug/L

"I may"

	Cor	itrol							
Analyte	l Lin	nit	Sample (S)	С	Duplicate (D)	С	RPD	Q	М
Alum num	0 -	200	452		470	"	18		Р
Antimony			4.8	В	5.5	В	14		Р
Arsenic			2.9	U	3.7	В	200		Р
Barium			44.1	В	45.4	В	3		Р
Beryllium			.2	В	.2	В	0		Р
Cadmium			.3	В	.3	В	0		Р
Calcium	0 -	20	187000		192000		3	1	Р
Chrornium			1.9	В	1.6	В	17		Р
Cobalt			1.7	В	1.6	В	6	Ī	Р
Copper	-		22.2	В	18.6	В	18		Р
Iron	Ō.	20	2430		2490		2	$\Box$	P
Lead	0 -	20	22.1		22.5		2		Р
Magnesium	0 .	20	30000		30300		1		Р
Manganese	0 .	20	527		530		.6		P
Mercury			.1	υ	.1	υ	0		ΑV
Nicke			4.3	В	3.7	В	15		Р
Potassium	0 .	5000	6950		7140		190		Р
Selen um			4.4	U	4.4	U	0	t	Р
Silver	-		.4	U	.4	U	0		P
Sodium	0 .	20	27000		27800		3		Р
Thallium	<del></del>		2.6	Ū	2.6	U	0	<del>                                     </del>	Р
Vanacium			2.1	В	1.7	В	21		Р
Zinc			7.3	В	7	В	4		Р
Cyanide			.5	U	.8	В	91		AS

# U.S. EPA - CLP 6 DUPLICATES

## EPA SAMPLE NO

SK	GW61	DUP1	009	(DISS)

			,
Lab Name: PROJ AA	H GCAL		
Lab Code: LA024	Case No.:	Contract:	
Matrix: ( soil / water )	Water	SAS No.:	SDG No.:
		Level: ( low / med )	
% Solids for Sample:		% Solids for Duplicate:	

# Concentration Units (ug/L or mg/kg dry weight) ug/L

·

	Control							
Analyte	Limit	Sample (S)	С	Duplicate (D)	С	RPD	Q	М
Aluminum	-	25.8	U	25.8	Ū	0		P
Antimony	-	4.5	В	3.7	U	200	1	Р
Arsenic	-	2.9	Ū	2.9	U	0		Р
Barium	-	39.4	В	38.9	В	1		Р
Beryllium	-	.1	В	.1	В	0		Р
Cadmium	-	.3	В	.2	U	200		Р
Calcium	0 _ 2	0 191000		186000		3		Р
Chronium	-	1.1	В	1.3	В	17		Р
Cobalt	-	1.4	В	1.3	В	7		P
Copper	-	8	В	5.2	В	42		Р
Iron	0 _ 10	0 187	T	195		8		Р
Lead	-	1.5	U	1.5	U	0		Р
Magnesium	0 _ 2	0 29100	1	28400		2		Р
Manganese	0 _ 2	0 485		477		2	T	Р
Mercury	-	.1	U	.1	U	0	1	AV
Nickel		4.2	В	3.6	В	15		P
Potassium	0 _ 500	6990		6860		130		P
Selenium	-	4.4	U	4.4	U	0		Р
Silver	-	.4	Ü	.4	U	0		Р
Sodium	0 _ 2	0 27900		27200		3	$I^-$	Р
Thallium	-	2.6	U	5.6	В	200	1	Р
Vanadium	-	1.2	В	1.8	В	40	$I^-$	Р
Zinc	-	.6	U	.6	U	0	1	Р

# U.S. EPA - CLP 7 LABORATORY CONTROL SAMPLE

Lab Name:	PROJ AAH GO	CAL	Contract:		·	
Lab Code:	LA024	Case No.:	SAS No.:	<u> </u>	SDG No.:	
Solid LCS S	ource:					
Aqueous LC	S Source:	310006 HIGH PURITY~323003 HIGH	1			

	Aq	ueous (ug/	L)	Solid (mg/kg)			
Analyte	True	Found	% R	True	Found	С	% R
Aluminum	2000	2190	109				
Ant⊦mony	500	557	111				
Arsenic	2000	2090	104				
Bar um	2000	2070	104				
Beryllium	50.0	54.2	108				
Cacmium	50.0	51.5	103				
Calcium	12500	13200	106				1
Chromium	200	206	103			-	
Cobalt	500	501	100				
Copper	250	280	112				
Iron	1000	1080	108				
Lead	500	512	102				1
Magnesium	12500	12700	102				
Manganese	500	521	104				
Nickel	500	509	102				
Potassium	12500	12900	103				
Selenium	2000	2120	106				
Silver	50.0	52.6	105				1
Sodium	12500	13100	105				
Thal ium	2000	2050	102				
Vanadium	500	530	106				
Zinc	500	481	96				-   ···

## LABORATORY CONTROL SAMPLE

Lab Name:	PROJ AAH G	CAL	Contract:		
Lab Code:	LA024	Case No.:	SAS No.:	SDG No.:	
Solid LCS S	ource:				
Aqueous LC	S Source:	310006 HIGH PURITY~323	003 HIGH		

	Aq	ueous (ug/	L)		Solid (m	ıg/kg)	
Analyte	True	Found	% R	True	Found	С	% R
Aluminum	2000	2110	105				
Antimony	500	552	110				
Arsenic	2000	2080	104				
Barium	2000	2060	103				
Beryllium	50.0	53.8	108				
Cadmium	50.0	51.5	103				
Calcium	12500	13000	104				
Chromium	200	204	102				
Cobalt	500	499	100				
Copper	250	275	110				
Iron	1000	1040	104				
Lead	500	512	102				
Magnesium	12500	12500	100				
Manganese	500	517	103				
Nickel	500	507	101				
Potassium	12500	12600	101				
Selenium	2000	2120	106				
Silver	50.0	51.4	103				
Sodium	12500	12800	103				
Thallium	2000	2040	102				
Vanadium	500	525	105		Ť		
Zinc	500	475	95				

ICP SERIAL DILUTIONS

<b>EPA</b>	SA	W	PL	Ε	NC
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SKGW611009SD

Lab Name:	PROJ A	AH GCAL				
Lab Code:	LA024	Case No.	Contract:			
Matrix: ( soil	/ water )	Water	SAS No.:	SD	G No.:	
			Level: ( lov	v / med )		***

Concentration Units: ug/L

<del></del>					<del></del>		
Analyte	Initial Sample Result (I)	С	Serial Dilution Result (S)	С	% Difference	Q	M
Aluminum	452		536	В	18.6	F	P
Antimony	4.8	В	18.5	U	285		P
Arsenic	2.9	Ū	17.7	В			Р
Barium	44.1	В	43.0	В	2.5		Р
Beryllium	0.2	В	0.5	U	150		P
Cadmium	0.3	В	1.0	U	233		P
Calcium	187000		189000		1.1		Р
Chromium	1.9	В	4.4	В	132		Р
Cobalt	1.7	В	2.0	U	17.6		Р
Copper	22.2	В	6.0	U	73	F	Р
Iron	2430		2400		1.2		Р
Lead	22,1		13.8	В	37.6	7	Р
Magnesium	30000		29300	1	2.3		Р
Manganese	527		525	$T^{-}$	.4		Р
Nicke	4.3	В	4.1	В	4.7		Р
Potassium	6950		6380	В	8.2		Р
Selenium	44.0	U	22.0	U			Р
Silver	4.0	U	2.0	U			Р
Sodium	27000		25900		4.1		Р
Thallium	26.0	U	13.0	U			Р
Vanadium	2.1	В	7.2	В	243		Р
Zinc	7.3	В	3.0	Ū	58.9	F	Р

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# ICP SERIAL DILUTIONS

EF				

SKGW611009(DISS)SD
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Lab Narne:	PROJ A	AH GCAL		1	
Lab Code:	LA024	Case No.	Contract:		
Matrix: ( soil	/ water )	Water	SAS No.:	SDG No.:	
			Level: ( low / med	)	

Concentration Units:

ug/L

	Initial		Serial			1	
	Sample		Dilution				
Analyte	Result (I)	С	Result (S)	С	% Difference	Q	М
Aluminum	258	U	129	U			Р
Antimony	4.5	В	18.5	U	311		P
Arser ic	29.0	Ü	14.5	U			Р
Barium	39.4	В	36.9	В	6.3		Р
Beryllium	0.1	В	0.5	U	400		Р
Cadmium	0.3	В	1.0	U	233		Р
Calcium	191000		194000		1.6		Р
Chromium	1.1	В	4.0	Ū	264		Р
Cobalt	1.4	В	2.0	U	42.9		Р
Copper	8.0	В	6.0	Ü	25		P
Iron	187		149	В	20.3	P	Р
Lead .	15.0	U	7.5	U			Р
Magriesium	29100		28900		.7		Р
Manganese	485		545		12.4	E	Р
Nickel	4.2	В	5.3	В	26.2		Р
Potassium	6990		6620	В	5.3		Р
Selenium	44.0	U	22.0	Ū			P
Silver	4.0	U	2.0	U			Р
Sodium	27900		27000		3.2		Р
Thallium	26.0	U	13.0	U			Р
Vanadium	1.2	В	4.0	U	233		Р
Zinc	6.0	U	3.0	U			Р

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# INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name:	PROJ AAH GCAL			
Lab Code:	LA024	Case No.:	SAS No.:	SDG No.:
Instrument I	D: ICP5		Study Date: 04/30/03	

	Wavelength		CRDL	IDL	
Analyte	(nm)	Background	(ug/L)	(ug/L)	М
Aluminum	308.210		200	25.8	p
Antimony	206.830		60	3.7	Р
Arsenic	193.700		10	2.9	Ь
Barium	233.520		200	.3	P
Beryllium	313.100		5	.1	P
Cadmium	214.430		5	.2	P
Calcium	315.880		5000	7.5	þ
Chromium	267.710		10	.8	þ
Cobalt	228.610		50	.4	þ
Copper	324.750		25	1.2	P <sup>2</sup>
Iron	259.940		100	14.1	P
Lead	220.350		3	1.5	P
Magnesium	279.080		5000	36.7	þ
Manganese	257.610		15	.2	р
Nickel	231.600		40	.7	P
Potassium	766.480		5000	42.1	Р
Selenium	196.030		5	4.4	F <sup>2</sup>
Siver	328.060		10	.4	P
Sodium	589.580		5000	45.4	P
Thallium	190.800		10	2.6	P
Vanadium	290.880		50	.8	F)
Zinc	213.860		20	.6	P

# ANALYSIS RUN LOG

Lab Name:	PROJ AAH	I GCAL	Contract:	
Lab Code:	LA024	Case No.:	SAS No.:	SDG No.:
Instrument I	D Number:	ICP5	Method Type: P	
Start Date:	03/25/04		End Date: 03/25/04	

## Analyte Symbols

				$\overline{}$																							
EPA Sample No.	D/F	Time	% R	Αl	Sb	As	Ва	Ве	Cd	Са	Cr	Со	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	TI	٧	Zn	Cn
ICV	1	1030			Х	Х		Х	Х	Х	Х	Х	Х	Х	X	Х	Х	$\neg$	Х		Х	Х		Χ	X	X	
ICV2	1	1036		X			X													Х			Х				
ICB	1	1043		Х	Х	Х	Х	Χ	Х	Х	Х	Х	Х	Х	Х	Х	Х		Х	Х	Х	Х	Х	Χ	X	Х	
CRDL	1	1050		Г	X	Х		Х	Х		Х	Х	X		Х		Х		X		Х	Х		Х	Х	Х	
ICSA	1	1057		X	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	X		Х	Х	Х	Х	Х	Х	X	X	
ICSAB	1	1103		Х	Х	Χ	Х	Χ	Х	Х	Х	Х	Х	Х	Х	Х	Х		Х	X	Х	Х	Х	Х	X	Х	П
ccv	1	1109		X		Х	Х	Χ	Х	Х	Х	Х	Х	Х	Х	Х	Х		Х	Х	Х	Х	Х	Х	X	Х	
CCV2	1	1115			X																						
CCB	1	1122		Х	Х	Χ	X	Χ	Х	Х	Х	Х	X	Х	X	Х	Х		Х	Х	Х	X	Х	Х	Х	Х	
MB154054	1	1129		Х	Х	Χ	X	Χ	Х	Х	X	Х	Х	Х	Х	Х	X		Х	Х	Х	Х	Х	Х	X	X	
SKGW611009	1	1136		X	Х	Χ	Х	Χ	Х	X	Х	Х	Х	Х	Х	Х	X		Х	X	Х	Х	Х	Х	X	Х	
SKGW61DUP1009	1	1143		X	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	X	Х	Х		X	Х	Х	Х	Χ	Х	Х	X	
SKGW611009SD	5	1149		Х	Х	Х	Х	Χ	Х	Х	X	Х	Х	Х	Х	Х	X		Х	Х	Х	X	Х	Х	Х	X	
SKGW581009	1	1156		X	X	Х	Х	Х	Х	Х	Х	Х	X	Х	Х	Х	X		Х	Х	Х	Х	Х	X	X	X	
SKGW58DUP1009	1	1203		Х	X	Х	X	Х	Х	Х	Х	X	Х	Х	X	Х	Х		Х	Х	Х	X	Х	X	Х	X	
SKGW631009	1	1209		Х	X	Х	X	Х	Х	Х	X	Х	Х	Х	X	X	Х		X	X	Х	Х	Х	Χ	X	Х	
SKGW06R1009	1	1215		Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	X	Х	Х		Х	Х	Х	Х	Х	Х	Х	X	
SKGW07R1009	1	1221		Х	Х	Х	X	Χ	Х	Х	Х	Х	Х	Х	Х	Х	Х		Х	Х	Х	Х	Х	X	Х	X	
SKGW591009	1	1227		X	Х	Χ	X	Χ	Х	Х	Х	Х	Х	Х	Х	X	Х		Х	Х	Х	Х	Х	Х	X	X	
CCV	1	1236		X		Х	X	Χ	Х	Х	Х	Х	Х	Х	X	Х	X		Х	X	Х	Х	Х	Х	Х	X	
CCV2	1	1243			Х																						
CCB	1	1250		Х	Х	Х	X	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х		Х	Х	Х	Х	Х	Х	Х	X	
SKGW601009	1	1257	-	X	X	Х	X	Х	Х	Х	Х	Х	Х	Х	X	Х	X		Х	Х	Х	Х	Х	Χ	X	X	
SKGW62A1009	1	1303		Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х		Х	Х	Х	Х	Х	Х	Х	Х	П
SKGW641009	1	1309		Х	Х	Х	Х	Х	Х	Х	X	Х	Х	Х	Х	X	X		Х	X	Х	Х	Х	Χ	Х	X	
SKGWFB1009	1	1315		Х	Х	Х	X	Х	Х	Х	X	Х	X	Х	X	Х	Х		Х	X	Х	X	Х	Х	X	X	
SKGW61MS1009	1	1322		Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х		Х	Х	Х	Х	Х	Х	Х	Х	

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## ANALYSIS RUN LOG

Lab Name:	PROJ AAH GCAL	Contract:
Lab Code:	LA024 Case No.:	SAS No.: SDG No.:
Instrument I	D Number: ICP5	Method Type: P
Start Date:	03/25/04	End Date: 03/25/04

				Analyte Symbols																							
EPA Sample No.	D/F	Time	% R	Αl	Sb	As	Ва	Ве	Cd	Ca	Cr	Со	Cu	Fe	Pb	Mg	Mn	Hg	Ni	κ	Se	Ag	Na	ΤI	٧	Zn	Cn
SKGW611009PDS	1	1328		X	Х	Х	X	X	X	X	X	X	Х	X	X	X	X		X	X	Х	X	X	Х	X	X	
LCS154055	1	1334		X	Х	X	X	X	Х	Х	X	X	Х	X	X	Х	X		Х	Х	Х	X	X	X	X	X	
CRDL	1	1340			Х	Х		X	X		Х	X	X		Х		Х		Х		Х	Х		Х	X	Х	
ICSA	1	1347		X	X	X	Х	X	X	X	X	Х	X	Х	X	X	Х		X	Х	Х	X	Χ	Х	X	Х	
ICSAB	1	1353		X	X	X	X	Х	Х	Х	X	X	Х	X	Х	Х	Х		Х	Х	Х	Х	X	Х	X	X	
CCV	1	1359		X		X	X	Х	Х	X	X	X	X	Х	Х	X	Х		Х	Х	X	Х	X	Х	X	X	
CCV2	1	1405		Π	Х																						
ССВ	1	1412		X	Х	X	X	Х	Χ	Х	X	Х	X	X	Х	Х	X		Х	X	Х	X	X	Х	Х	X	
MB154057	1	1420		X	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	X	Х		X	Х	Х	X	Х	Х	X	X	
SKGW611009(DISS)	1	1427		X	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	X	Х	Х		X	X	Х	Х	Χ	X	Х	X	
SKGW61DUP1009 (DISS)	1	1434		X	Х	Х	Х	Х	X	X	Х	X	Х	Х	X	Х	X		Х	Х	Х	X	X	X	X	X	
SKGW611009(DISS)SD	5	1441		X	X	Х	Х	X	Х	Х	Х	Х	Х	X	X	Х	Х		Х	X	Х	Х	Х	Х	X	X	
SKGW581009(DISS)	1	1448		X	Х	Х	Х	Х	X	Х	Х	Х	Х	Х	Х	Х	X		X	Х	Х	Х	X	X	X	X	
SKGW58DUP1009(DISS)	1	1455		X	X	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х		Х	Х	X	X	X	Х	X	X	
SKGW631009(DISS)	1	1502		X	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	X	Х	Х		Х	X	X	X	X	Х	X	X	
SKGW06R1009 (DISS)	1	1509		X	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х		Х	X	X	Х	X	Х	X	X	
SKGW07R1009 (DISS)	1	1516		X	Х	Х	X	X	Х	Х	X	X	Х	Х	Х	X	Х		X	Х	Х	X	Х	X	X	X	
SKGW591009 (DISS)	1	1522		X	Х	X	X	Х	Χ	Х	Х	Х	Х	Х	Х	Х	Х		Х	Х	Х	X	Х	Х	X	X	Г
CCV	1	1529		X		X	Х	Х	Х	Х	Х	X	Х	X	X	Х	Х		Х	Х	Х	Х	Х	Х	X	X	
CCV2	1	1535			Х	_	П				_		_			_			-			П					Π
ССВ	1	1542		X	Х	Х	X	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х		Х	X	Х	X	Х	Х	Х	X	
SKGW601009 (DISS)	1	1549		X	Х	Х	Х	Х	Х	Х	Х	X	X	X	X	X	X		Х	X	Х	X	X	х	X	X	
SKGW62A1009 (DISS)	1	1556		X	X	X	X	Х	X	Х	Х	Х	Х	Х	X	X	X		Х	X	Х	Х	Х	Х	Х	X	Π
SKGW641009 (DISS)	1	1602		X	Х	X	Х	Х	Х	Х	X	Х	X	X	X	Х	X		Х	Х	Х	х	Х	X	Х	Х	
SKGWFB1009 (DISS)	1	1609		X	Х	X	X	X	X	Х	Х	X	X	X	X	X	X		X	Х	X	X	X	Х	X	X	<u> </u>
		4										ــــــــــــــــــــــــــــــــــــــ															

SKGW61MS1009(DISS)

SKGW611009(DISS)PDS

1616

1622

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# 14 ANALYSIS RUN LOG

Lab Name: PROJ AAH GCAL	Contract:
Lab Code: LA024 Case No.:	SAS No.: SDG No.:
Instrument ID Number: ICP5	Method Type: P
Start Date: 03/25/04	End Date: 03/25/04

														An	alyte	Syr	nbo	ls									
EPA Sample No.	D/F	Time	% R	ΑI	Sb	As	Ва	Ве	Cd	Ca	Cr	Со	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	TI	٧	Zn	Cn
LCS154058	1	1629		TX	X	X	X	Х	X	X	Х	Х	X	X	Х	X	X	l	X	X	Х	Х	Х	Х	X	X	
CRDL	1	1635			Х	Х		Х	Х		X	X	X		X		Х		Х		Х	Х		Х	Х	X	
ICSA	1	1642	1	X	Х	Х	X	X	X	X	X	Х	Х	X	X	X	Х		X	Х	Х	Х	Х	Х	Х	Х	
ICSAB	1	1648		X	Х	Х	Х	X	X	Х	Х	X	X	X	X	X	Х		X	X	Х	Х	Х	Х	X	X	
CCV	1	1655		X		Х	X	X	X	X	X	X	X	X	X	X	X		X	X	Х	Х	Х	X	X	X	
CCV2	1	1701			Х		T								<u> </u>	厂									Г	$\Box$	
ССВ	1	1708	Ţ	X	Х	Х	Х	Х	X	Х	X	X	X	Х	X	X	X		X	X	X	Х	Х	Х	Х	Х	

## DATA VALIDATION REPORT

# **FOR**

## SKINNER LANDFILL SITE

**EARTH TECH: PROJECT NUMBER 54280** 

LABORATORY REPORT NUMBER 204032408

PROJECT MANAGER: Ron Rolker

Date: May 25, 2004

Revised Date: August 26, 2005

**Data Validator: Mark Kromis** 

# APPENDIX C LIST OF ACRONYMS

BFB Bromofluorobenzene
CC Continuing Calibration

CCV Continuing Calibration Verification
CCB Continuing Calibration Blanks
CLP Contract Laboratory Program
CRDL Contract Required Detection Limit
DFTPP Decafluorotriphenylphosphine

GC/MS Gas Chromatograph/Mass Spectrometer

IC Initial Calibration

ICBInitial Calibration BlankIDLInstrument Detection LimitICPInductively Coupled PlasmaICSInterference Check SampleICVInitial Calibration Verification

ILM Inorganic Analysis Multi-Media Multi-Concentration

INDAM Individual A Mixture INDBM Individual B Mixture mg/L milligrams per liter

MS/MSD Matrix Spike/Matrix Spike Duplicate
OLC Organic Analysis Low Concentration

OLM Organic Analysis Multi-Media Multi-Concentration

%D Percent Difference

الموين الا

% RSD Percent Relative Standard Deviation

PB Preparation Blanks
QC Quality Control
RF Response Factor

RPD Relative Percent Difference
RRF Relative Response Factor
SDG Sample Delivery Group
SOW Statement of Work

µg/L micrograms per liter

US EPA United States Environmental Protection Agency

VOC Volatile Organic Compounds VTSR Validated Time of Sample Receipt

# **CASE NARRATIVE**

The Inorganic portion of this report was revised do to the submission of additional data for the metals that were not reported by GCAL in the original data package. The following metals were included in the resubmission: Aluminum, Calcium, Cobalt, Magnesium, Manganese, Potassium, Sodium, and Vanadium.

# DATA VALIDATION SUMMARY – SAMPLE DELIVERY GROUP 204032408 INORGANICS

Validation of the inorganics data, as prepared by Gulf Coast Analytical Laboratories (GCAL) for the samples collected from the Skinner Landfill site in March 2004, was conducted by Earth Tech using the National Functional Guidelines for Inorganic Data Review, (US EPA, February, 1994), as appropriate. The results were reported by GCAL under Sample Delivery Group (SDG) 204032408.

GCAL #	Sample Description
20403240801	SKSWEB1009
20403240802	SKSW511009
20403240803	SKSW51MS1009
20403240805	SKSW51DUP1009
20403240806	SKSW521009
20403240807	SKSW531009
20403240808	SKSWEB1009 (DISS)
20403240809	SKSW511009 (DISS)
20403240810	SKSW51MS1009 (DISS)
20403240811	SKSW51DUP1009 (DISS)
20403240812	SKSW521009 (DISS)
20403240813	SKSW531009 (DISS)

#### INTRODUCTION

Analyses of metals were performed according to Contract Laboratory Program (CLP)-Inorganic Analysis Multi-media Multi-concentration ILM04.1 Statement of Work (SOW). Results of the sample analyses are reported by the laboratory as either qualified or unqualified. Unqualified results mean that the reported values maybe used without reservation. Various qualifier codes are used by the laboratory to denote specific information regarding the analytical results.

The data validation process is intended to evaluate the data on a technical basis. The data package also was subjected to an internal laboratory quality review prior to submission to Earth Tech for data validation.

During the validation process, laboratory-qualified and unqualified data are verified against all available supporting documentation. Based on this evaluation, qualifier codes may be added, deleted or modified by the data user. Final results are therefore, either qualified or unqualified. Validator-qualified results are annotated with the following codes in accordance with the Functional Guidelines:

- U The constituent was analyzed for, but was not detected above the level of the associated analytical reporting limit. The associated value is either the sample quantitation limit or the sample detection limit.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Details of the inorganics data validation findings and conclusions are provided in the following sections of this report:

- 1. Holding Times
- 2. Calibration
  - A. Initial Calibration (IC)
  - B. Continuing Calibration (CC)
- 3. Blanks
- 4. Inductively Coupled Plasma (ICP) Interference Check Sample
- 5. Laboratory Control Sample (LCS)
- 6. Duplicate Analysis
- 7. Spike Sample Analysis
- 8. ICP Serial Dilution
- 9. System Performance
- 10. Documentation
- 11. Overall Assessment

#### 1. HOLDING TIMES

All samples for inorganics analyses were analyzed within the 180-day holding time for preserved aqueous samples. Mercury analyses were conducted within the 28-day holding time for aqueous samples undergoing CLP protocol. Cyanide analyses were conducted within the 14-day holding time. The cooler temperature upon receipt at the laboratory was within the recommended temperature of 4°C +/- 2°C.

#### 2. CALIBRATION

-

#### A. Initial Calibration

The percent recoveries for the Initial Calibration Verification (ICV) standard were within Quality Control (QC) limits for all constituents.

# B. Continuing Calibration

The percent recoveries for the Continuing Calibration Verification (CCV) standard were within OC limits for all constituents.

#### 3. BLANKS

The Initial Calibration Blank (ICB), Continuing Calibration Blanks (CCB) and Preparation Blanks (PB) were analyzed at the appropriate frequencies. No constituents were detected in the ICB, CCB, and PB blanks above the corresponding Contract Required Detection Limit (CRDL).

## 4. ICP INTERFERENCE CHECK SAMPLE

Results for the ICP analysis of the Interference Check Sample (ICS) solution AB were within 20% of the true value.

#### 5. LABORATORY CONTROL SAMPLES

Recoveries were within the control limit (80-120%) for all constituents.

## 6. **DUPLICATE ANALYSIS**

The laboratory used sample SKSW511009 for the duplicate sample. The Relative Percent Difference (RPD) between the sample and duplicate results for the dissolved fraction were within the acceptance criteria (<20%) for all target compounds. The Relative Percent Difference (RPD) between the sample and duplicate results for the total fraction were within the acceptance criteria (<20%) for all target compounds with the exception of Aluminum, Arsenic, Barium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Nickel, and Zinc. As per the National Functional Guidelines, if the result from a duplicate analysis for a particular analyte falls outside the appropriate fixed control windows; qualify the results for that analyte in all associated samples of the same matrix as estimated (J).

#### 7. SPIKE SAMPLE ANALYSIS

The laboratory used sample SKSW511009 for the matrix spike sample. The MS percent recoveries were within the acceptance criteria (75%-125%) with the exception of Antimony (35%), Arsenic (151%), Selenium (0%), and Zinc (128%) in the total fraction and Arsenic (128%) and Selenium (0%) in the dissolved fraction.

As per the National Functional Guidelines: if the percent recovery is greater than 30% and less than 74% qualify detected results for that analyte with "J" and non-detected results with "UJ". If the percent recovery is less than 30% qualify detected results for that analyte with "J" and non-detected results with "R".

#### 8. ICP SERIAL DILUTION

As noted in the National Functional Guidelines: If the analyte concentration is at least 50 times above the IDL, its serial dilution analysis must then agree within 10% of the original determination after corrected for dilution. The serial dilution is performed to determine whether any significant chemical or physical interference's exist due to matrix effects. The serial dilution percent differences were within the acceptance criteria for all target analytes with the exception of Aluminum, Barium, Chromium, Iron, Magnesium, Nickel, Potassium, and Vanadium in the total fraction. The serial dilution percent differences were within the acceptance criteria for all target analytes with the exception of Manganese in the dissolved fraction. As per the National Functional Guidelines: if the required 10% Difference criteria are not met qualify the associated data as estimated "J".

## 9. SYSTEM PERFORMANCE

The analytical system appears to have been working well at the time of these analyses, based on the evaluation of the raw data.

#### 10. **DOCUMENTATION**

GCAL qualified the total metal results for Beryllium, Cadmium, Cobalt, Mercury and Potassium with (\*) on the Form 1's to indicate that the RPD between the original results and its duplicate result exceeded the control limit. The RPD was actually within the control limit therefore the data validator crossed out the (\*) with a single line and dated and initialed the bottom of the report.

# 11. OVERALL ASSESSMENT

The percent recoveries for Copper in the Contract Required Detection Limit (CRDL) standards were 80%, 77% and 78%.

If the CRDL is below 80% then detected results are qualified as estimated with "J" and the non-detected results were qualified with "UJ".

The results are acceptable with the validator-added qualifiers.

# DATA VALIDATION SUMMARY – SAMPLE DELIVERY GROUP 204032408 SEMIVOLATILE ORGANICS

14.00

Validation of the Gas Chromatograph/Mass Spectrometer (GC/MS) semi-volatile organics data, as prepared by Gulf Coast Analytical Laboratories (GCAL) for the samples collected from the Skinner Landfill site in March 2004, was conducted by Earth Tech using the National Functional Guidelines for Organic Data Review, (US EPA, October, 1999) as appropriate. The results were reported by GCAL under SDG 204032408.

GCAL#	Sample Description
20403240801	SKSWEB1009
20403240802	SKSW511009
20403240803	SKSW51MS1009
20403240804	SKSW51MSD1009
20403240806	SKSW521009
20403240807	SKSW531009

#### **INTRODUCTION**

Analyses were performed according to CLP-Organic Analysis Multi-Media, Multi-Concentration OLM04.2 SOW. Results of the sample analyses are reported by the laboratory as either qualified or unqualified. Unqualified results mean that the reported values may be used without reservation. Various data qualifier codes are used by the laboratory to denote specific information regarding the analytical results. The data validation process is intended to evaluate the data on a technical basis. The data package also was subjected to an internal laboratory quality review prior to submission to Earth Tech for data validation.

During the validation process, laboratory-qualified and unqualified data are verified against all available supporting documentation. Based on this evaluation, qualifier codes may be added, deleted or modified by the data user. Final results are therefore, either qualified or unqualified. Validator-qualified results are annotated with the following codes in accordance with the Functional Guidelines:

- U The constituent was analyzed for, but was not detected above the level of the associated analytical reporting limit. The associated value is either the sample quantitation limit or the sample detection limit.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Details of the semivolatile data validation findings and conclusions are provided in the following sections of this report:

1. Holding Times

- 2. GC/MS Tuning
- 3. Calibration
  - A. IC
  - B. CC
- 4. Blanks
- 5. System Monitoring Compound Recovery
- 6. MS/MSD
- 7. Internal Standards Performance
- 8. Compound Identification
- 9. Constituent Quantitation and Reported Detection Limits
- 10. System Performance
- 11. Documentation
- 12. Overall Assessment

#### 1. HOLDING TIMES

All samples were initially extracted within the seven-day technical holding time and the five-day VTSR method holding time. The cooler temperature upon receipt at the laboratory was within the recommended temperature of 4°C +/- 2°C.

#### 2. GC/MS TUNING

The samples were analyzed on a single GC/MS system, identified as MSSV2. Two decafluorotriphenylphosphine (DFTPP) tunes were run representing the shift in which the standards and samples were analyzed. The DFTPP tunes are acceptable.

#### 3. CALIBRATION

#### A. Initial Calibration

One IC dated 3/19/04 was analyzed in support of the semivolatile sample analyses. Documentation of the IC was present in the data package, and the Relative Response Factor (RRF), as well as percent % RSD values were accurately reported for all target compounds. The criteria employed for technical data review purposes are different than those used in the method. The laboratory must meet a minimum RRF of 0.01; however, for data review purposes, a RRF criterion of "greater than or equal to 0.05" is applied to all semi-volatile compounds. The RRF's and the average RRF were within the acceptance criteria specified in the method for all reported analytes. The %RSD's were within the acceptance criteria specified in the method for all target analytes with the exception of Di-n-butylphthalate (32.0%), Di-n-octylphthalate (30.3%) and Diethylphthalate (41.8%). The lowest point of the calibration curve was dropped for Di-n-butylphthalate, Di-n-octylphthalate, and Diethylphthalate and the %RSD were recalculated. The recalculated %RSD were within the acceptance criteria of less than 30%. Di-n-octylphthalate and Diethylphthalate were not detected in the associated samples therefore data qualification was not required. The detected results for Di-n-butylphthalate were mitigated do to the presence of Di-n-butylphthalate in the associated method blank.

## B. Continuing Calibration

One CC dated 4/7/04 was analyzed in support of the semivolatile sample analyses reported in the data submissions. The RRF's for the CC dated 4/7/04 were within the acceptance criteria. The percent difference (%D) between the average RRF's and the CC Response Factors for the CC dated 4/7/04 were within the acceptance criteria with the exception the %D for Di-nbutylphthalate and Di-n-octylphthalate. As per the National Functional Guidelines, if the %D exceeds the acceptance criteria qualify detected results for that analyte with "J" and non-detected results for that analyte with "UJ".

#### 4. BLANKS

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One laboratory semivolatile method blank and equipment blank were analyzed with this SDG. The results are summarized below.

#### Method Blank (0325SBLK)

Di-n-butylphthalate was detected at a concentration of 0.851 ppb in method blank 0322SBLK.

## Equipment Blank (SKSWEB1009)

Di-n-butylphthalate was detected at a concentration of 0.904 ppb in the equipment blank collected on 3/22/04. The Di-n-butylphthalate result was mitigated by the presence of Di-n-butylphthalate in the associated extraction blank.

#### 5. SYSTEM MONITORING COMPOUND RECOVERY

All reported semivolatile system monitoring compounds were recovered within acceptable control limits.

# 6. MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD)

Sample SKSW511009 was submitted for MS/MSD analysis. The MS/MSD percent recoveries were within the acceptance criteria with the exception of the 4-Nitorphenol. The %RPD between the MS/MSD are within the acceptance criteria. As per the National Functional Guidelines, no action is taken on MS/MSD data alone.

#### 7. INTERNAL STANDARDS PERFORMANCE

Internal standard areas and retention times were within acceptable limits for the reported semivolatile sample analyses.

#### 8. COMPOUND IDENTIFICATION

All reported semivolatile constituents were correctly identified with supporting chromatograms present in the data package.

# 9. CONSTITUENT QUANTITATION AND REPORTED DETECTION LIMITS

Constituent quantitations were correctly calculated and reported for semivolatile constituents.

#### 10. SYSTEM PERFORMANCE

The analytical system appears to have been working well at the time of these analyses, based on the evaluation of the raw data submitted for review.

## 11. DOCUMENTATION

The documentation appeared accurate and in order with the exception of the following: GCAL inadvertently left the Date Extracted off of the CLP Form 1's therefore the data validator inserted the Date Extracted on the CLP Form 1's. GCAL also inadvertently left the "B" qualifier off of the CLP Form 1's for the compound Di-n-butylphthalate therefore the data validator inserted a "B" qualifier in the "Q" column of the CLP Form 1's. The "B" qualifier indicates that the analyte was detected in the associated method blank.

#### 12. OVERALL ASSESSMENT

The results are acceptable with the validator-added qualifiers.

# DATA VALIDATION SUMMARY – SAMPLE DELIVERY GROUP 204032408 VOLATILE ORGANIC

Validation of the GC/MS volatile organics data, as prepared by Gulf Coast Analytical Laboratories (GCAL) for the samples collected from the Skinner Landfill site in March 2004, was conducted by Earth Tech using the National Functional Guidelines for Organic Data Review, (US EPA, October, 1999), as appropriate. The results were reported by GCAL under SDG 204032408.

GCAL #	Sample Description
20403240801	SKSWEB1009
20403240802	SKSW511009
20403240803	SKSW51MS1009
20403240804	SKSW51MSD1009
20403240806	SKSW521009
20403240807	SKSW531009

#### INTRODUCTION

Analyses were performed according to CLP-Organic Analysis Low Concentration OLC02.0 SOW. Results of the sample analyses are reported by the laboratory as either qualified or unqualified. Unqualified results mean that the reported values may be used without reservation. Various qualifier codes are used by the laboratory to denote specific information regarding the analytical results. The data validation process is intended to evaluate the data on a technical basis. The data package also was subjected to an internal laboratory quality review prior to submission to Earth Tech for data validation.

During the validation process, laboratory-qualified and unqualified data are verified against all available supporting documentation. Based on this evaluation, qualifier codes may be added, deleted or modified by the data user. Final results are therefore, either qualified or unqualified. Validator-qualified results are annotated with the following codes in accordance with the Functional Guidelines:

- U The constituent was analyzed for, but was not detected above the level of the associated analytical reporting limit. The associated value is either the sample quantitation limit or the sample detection limit.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ The analyte was not detected above the reported sample quantitation limit.

However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

The volatiles data validation findings and conclusions are provided in the following sections of this report:

- 1. Holding Times
- 2. GC/MS Tuning
- 3. Calibration
  - A. IC
  - B. CC
- 4. Blanks
- 5. System Monitoring Compound Recovery
- 6. MS/MSD
- 7. Laboratory Control Sample
- 8. Internal Standards Performance
- 9. Compound Identification
- 10. Constituent Quantitation and Reported Detection Limits
- 11. System Performance
- 12. Documentation
- 13. Overall Assessment

# 1. HOLDING TIMES

All samples for Volatile Organic Compounds (VOC) analyses were analyzed within the 14-day technical holding time and the 10-day VTSR method holding time. The cooler temperature upon receipt at the laboratory was within the recommended temperature of 4°C +/- 2°C.

#### 2. GC/MS TUNING

The samples were analyzed on two GC/MS system, identified as MSV0 and MSV2. Two bromofluorobenzene (BFB) tunes were run. The BFB tunes are acceptable.

#### 3. CALIBRATION

#### A. Initial Calibration

One IC dated 3/23/04 was analyzed on instrument MSV2 in support of the volatile sample analyses reported in the data submissions. Documentation of the IC standards is present in the data package, and RRF's as well as %RSD values were accurately reported. The criteria employed for technical data review purposes are different than those used in the method. The laboratory must meet a minimum RRF of 0.01; however, for data review purposes, a RRF criterion of "greater than or equal to 0.05" is applied to all volatile compounds. The %RSD's were within the acceptance criteria specified in the method for all target analytes. The RRF's and the average RRF for the IC dated 3/23/04 were within the acceptance criteria specified in the method for all target analytes with the exception of Acetone. As per the National Functional Guidelines, if any initial calibration RRF is less than 0.05, qualify positive results that have acceptable mass spectral identification with "J", using professional judgement, and non-detected analytes as unusable (R). It should be noted that the laboratory did meet the minimum RRF of 0.01 for all target compounds.

# B. Continuing Calibration

One CC dated 3/23/04 was analyzed on instrument MSV2 in support of the volatile sample analyses reported in the data submissions. The percent difference (%D) between the average RRF's and the CC RF's were within the acceptance criteria for all target analytes. The CC RRF's were within the acceptance criteria specified in the method for all target analytes with the exception of Acetone. The Acetone results were previously qualified under section 3A above.

#### 4. BLANKS

One laboratory volatile method blank, storage blank, and Equipment Blank were analyzed with this SDG. The results are summarized below.

## MB154405

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1,2-Dichlorobenzene was detected at a concentration of 0.17 ppb in the method blank analyzed on 3/24/04.

#### Storage Blank (VHBLK01)

No compounds were detected above the MDL in the storage blank analyzed on 3/24/04.

#### Trip Blank

The same

4 44-15

There was no Trip Blank submitted for this sampling event.

# Equipment Blank (SKSWEB1009)

Acetone, Methylene chloride and Toluene were detected at concentrations of 2.8 ppb, 0.47 ppb and 1.1 ppb respectively in the equipment blank collected on 3/22/04.

# 5. SYSTEM MONITORING COMPOUND RECOVERY

All reported volatile system monitoring compounds were recovered within acceptable control limits for all samples.

#### 6. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Sample SKSW511009 was submitted for MS/MSD analysis. The MS/MSD percent recoveries and %RPD between the MS/MSD were within the acceptance criteria.

# 7. LABORATORY CONTROL SAMPLE

A LCS was analyzed in conjunction with this SDG. Recoveries were within the control limit for all constituents.

#### 8. INTERNAL STANDARDS PERFORMANCE

Internal Standard (IS) areas and retention times were within acceptable limits for the reported volatile sample analyses.

#### 9. COMPOUND IDENTIFICATION

All reported VOCs were correctly identified with supporting chromatograms present in the data package.

## 10. CONSTITUENT QUANTITATION AND REPORTED DETECTION LIMITS

Constituent quantitations were correctly calculated and reported for VOCs with the exception of Ethylbenzene. The Ethylbenzene standard and detected results were originally quantitated using the incorrect quantitation ion (GCAL used 106 instead of 91). GCAL corrected the mistake and re-submitted the corrected pages that were affected in the laboratory report. The overall effect had no impact in the final result for Ethylbenzene.

#### 11. SYSTEM PERFORMANCE

The analytical system appears to have been working well at the time of these analyses, based on the evaluation of the raw data.

# 12. **DOCUMENTATION**

The documentation appeared accurate and in order with the exception of the following: GCAL inadvertently transposed the area counts and retention times for IS Chlorobenzene-d5 and 1,4-Dichlorobenzene-d4. The data validator corrected the mistake by drawing arrows to indicate the correct area counts and retention times for IS Chlorobenzene-d5 and 1,4-Dichlorobenzene-d4.

## 13. OVERALL ASSESSMENT

The results are acceptable with the validator-added qualifiers.

# DATA VALIDATION SUMMARY - SAMPLE DELIVERY GROUP 204032408 PESTICIDES

Validation of the Gas Chromatography (GC) pesticides data, as prepared by Gulf Coast Analytical Laboratories (GCAL) for the samples collected from the Skinner Landfill site in March 2004, was conducted by Earth Tech using the National Functional Guidelines for Organic Data Review, (US EPA, October, 1999), as appropriate. The results were reported by GCAL under SDG 204032408.

GCAL#	Sample Description
20403240801	SKSWEB1009
20403240802	SKSW511009
20403240803	SKSW51MS1009
20403240804	SKSW51MSD1009
20403240806	SKSW521009
20403240807	SKSW531009

#### INTRODUCTION

Analyses were performed according to CLP-Organic Analysis Multi-Media, Multi-Concentration OLM04.2 SOW. Results of the sample analyses are reported by the laboratory as either qualified or unqualified. Unqualified results mean that the reported values may be used without reservation. Various qualifier codes are used by the laboratory to denote specific information regarding the analytical results.

The data validation process is intended to evaluate the data on a technical basis. The data package also was subjected to an internal laboratory quality review prior to submission to Earth Tech for data validation.

During the validation process, laboratory-qualified and unqualified data are verified against all available supporting documentation. Based on this evaluation, qualifier codes may be added, deleted or modified by the data user. Final results are therefore, either qualified or unqualified. Validator-qualified results are annotated with the following codes in accordance with the Functional Guidelines:

- U The constituent was analyzed for, but was not detected above the level of the associated analytical reporting limit. The associated value is either the sample quantitation limit or the sample detection limit.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Details of the pesticide data validation findings and conclusions are provided in the following sections of this report:

- 1. Holding Times
- 2. Gas Chromatograph/Electronic Capture Detector (GC/ECD) Instrument Performance Check
- 3. IC
- 4. Calibration Verification
- 5. Blanks
- 6. Surrogate Spikes
- 7. Matrix Spike/Matrix Spike Duplicate (MS/MSD)
- 8. Pesticide Cleanup Checks
- 9. Target Compound Identification
- 10. Constituent Quantitation and Reported Detection Limits
- 11. Documentation
- 12. Overall Assessment

#### 1. HOLDING TIMES

All samples were extracted within the seven-day technical holding time and the five-day VTSR method holding time. The cooler temperature upon receipt at the laboratory was within the recommended temperature of 4°C +/- 2°C.

# 2. GC/ECD INSTRUMENT PERFORMANCE CHECK

The Performance Evaluation Mixture (PEM) was analyzed at the correct frequency. Absolute retention times were within limits.

The percent resolution between adjacent peaks was within QC limits for the Pesticide Analyte Resolution Check.

The percent resolution between adjacent peaks is within QC limits for the Performance Evaluation Mixtures (PEM). The percent breakdown for both 4,4-DDT and Endrin in each PEM was less than 20.0% for both GC columns. The combined percent breakdown for 4,4-DDT and Endrin in each PEM was less than 30.0% for both GC columns.

#### 3. INITIAL CALIBRATION

Individual standard mixtures A and B were analyzed at the correct frequencies and concentrations. The percent resolution criterion was met for Individual standard mixtures A and B.

The Percent Relative Standard Deviation (%RSD) of the calibration factors for each of the single component pesticides was less than 20%.

The multi-component target compounds were analyzed separately on both columns at a single concentration level. Retention times were determined from a minimum of three peaks.

#### 4. CALIBRATION VERIFICATION

Absolute retention times were within appropriate time retention windows

#### 5. BLANKS

One laboratory method blank and Equipment Blank were analyzed with this SDG. The results are summarized below.

## Method Blank 155051

No constituents were detected above the laboratory-reporting limit. This blank corresponds to all samples extracted on 3/26/04.

## Equipment Blank SKSWEB1009

No constituents were detected above the laboratory-reporting limit in the equipment blank collected on 3/22/04.

#### 6. SURROGATE SPIKES

Decachlorobiphenyl (DCB) and tetrachloro-m-xylene (TCX) surrogate spike recoveries were within the acceptance criteria for all samples.

#### 7. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Sample SKSW511009 was submitted for MS/MSD analysis. The MS/MSD percent recoveries were within the acceptance criteria. The %RPD between the MS/MSD are within the acceptance criteria.

#### 8. PESTICIDE CLEANUP CHECKS

Recoveries of all pesticides and surrogates were within 80-120% for the lot of Florisil cartridges utilized for pesticide cleanup with the exception of 4,4'-DDT (130%). There were no target compounds detected in the associated samples therefore no action was taken.

#### 9. TARGET COMPOUND IDENTIFICATION

All reported pesticide data were correctly identified with supporting chromatograms present in the data package.

#### 10. CONSTITUENT QUANTITATION AND REPORTED DETECTION LIMITS

Constituent quantitations were correctly calculated and reported for pesticide constituents.

#### 11. DOCUMENTATION

The documentation appeared accurate and in order with the exception of the following: GCAL inadvertently left the Date Extracted off of the CLP Form 1's therefore the data validator inserted the Date Extracted on the CLP Form 1's.

#### 12. OVERALL ASSESSMENT

The results are acceptable with the validator-added qualifiers.

## REFERENCES

US EPA, 1994. National Functional Guidelines for Inorganic Data Review.

US EPA, 1999. National Functional Guidelines for Organic Data Review.



"Lines"

# **ANALYTICAL RESULTS**

**PERFORMED BY** 

**GULF COAST ANALYTICAL LABORATORIES, INC.** 

**Report Date** 04/16/2004

GCAL Report 204032408

RESUBMITTED

Deliver To Earth Tech 200 Vine Street Wilder, KY 41076 859-442-2300

Attn Pat Higgins

Customer Earth Tech

Project Skinner Landfill

#### CASE NARRATIVE

Client: Earth Tech Report: 204032408

Gulf Coast Analytical Laboratories received and analyzed the sample(s) listed on the sample cross-reference page of this report. Receipt of the sample(s) is documented by the attached chain of custody. This applies only to the sample(s) listed in this report. No sample integrity or quality control exceptions were identified unless noted below.

In the ILM04.1 CLP metals, Forms I, II, III, V, VI, VII, IX, X, and XIV were resubmitted 07/28/2005 to report TAL metals.

#### SEMI-VOLATILES MASS SPECTROMETRY

The MS/MSD recoveries for 4-Nitrophenol are above the control limits.

#### SEMI-VOLATILES GAS CHROMATOGRAPHY

In the Florisil check analysis, the recovery for DDT was above recovery limit, however DDT was not detected in the associated samples.

#### **METALS**

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THE MES

Barium, Chromium, Iron, and Nickel are flagged as estimated for samples associated with prep batch 271292 due to the fact that the percent difference between the original sample result and the serial dilution result is greater than 10. A chemical or physical interference is suspected. In the ILM04.1 - CLP Metals analysis, the MS recovery was outside the control limits for Antimony, Arsenic, Selenium, and Zinc. The LCS recovery was within control limits. This indicates the analysis is in control and the sample is affected by matrix interference. A post-digestion spike was performed on the QC sample for this batch with a recovery of 109% for Antimony, 131% for Arsenic, 64% for Selenium, and 139% for Zinc. The MS recovery is not applicable for Aluminum, Manganese, Iron, and Lead because the sample concentration is greater than four times the spike concentration. The Sample/Duplicate RPD for Aluminum, Arsenic, Barium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Nickel, Potassium, Vanadium, and Zinc was outside the control limits. The heterogeneous nature of the QC sample is believed to be responsible for this.

In the ILM04.1 - CLP Metals analysis for prep batch 271294, the MS recovery was outside the control limits for Arsenic and Selenium. The LCS recovery was within control limits. This indicates the analysis is in control and the sample is affected by matrix interference. A post-digestion spike was performed on the QC sample for this batch with a recovery of 106% for Arsenic and 94% for Selenium. The Sample/Duplicate RPD for Vanadium is not applicable because the sample and/or duplicate concentration are less than five times the reporting limit.

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#### EPA SAMPLE NO.

INORGANIC	ANALYSIS	DATA	SHEET

SKSWEB1009

Lab Name: GC	• 61					
	/AL	Con	tract:		<del></del>	
Lab Code: LA0	24 Case No.:	SAS	No.:	SDG N	lo.: 2040	32408
Vlatrix: ( soil / wa	iter) Water	Lab Sa	ample ID: 20403:	240801		
_evel: ( low / med	d)		Received: 03/24/			
% Solids:		Date	Received. OSIZ4/			
	Jnits (ug/L or mg/kg dry wei	ght) : ug/L				
CAS No.	Analyte	Concentration	С	Q	M	7
429-90-5	Aluminum	25.8	U	*,E	Р	1
440-36-0	Antimony	3.7	U	N	Р	u 7
440-38-2	Arsenic	2.9	U	N,*	Р	1
440-39-3	Barium	0.3	В	*,E	Р	3
440-41-7	Beryllium	0.1	U		Р	1
440-43-9	Cadmlum	0.2	U		P	1
440-70-2	Calcium	34.9	В	*	Ρ	11
440-47-3	Chromium	1.0	В	*,E	P	7
440-48-4	Cobalt	0.4	В		P	1
440-50-8	Copper	6.5	В	*	P	1
439-89-6	Iron	37.8	В	*,E	P	J
439-92-1	Lead	1.5	U	•	P	1
439-95-4	Magnesium	36.7	U	*,E	P	1
<b>439</b> -96-5	Manganese	0.4	В	-	P	1
439-97-6	Mercury	0.1	U		AV	1
440-02-0	Nickei	1.4	В	*,E	P	1
440-09-7	Potassium	42.1	U	/,E	P	1
782-49-2	Selenium	4.4	U	N	P	R
440-22-4	Silver	1.2	В		P	<b>"</b>
440-23-5	Sodium	45.4	U		P	1
440-28-0	Thallium	2.6	U		P	1
440-62-2	Vanadium	0.8	U	E	P	1
440-66-6	Zinc	9.7	В	N,*	P	1
7-12-5	Cyanide	0.5	U U		AS	۱ ٦

FORM I - IN

ILM04.1

COO337 RESUBMITTED

## INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SKSW511009	
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Lat Name: GCAL	Contract:	
Lab Code: LA024 Case No.:	SAS No.:	SDG No.: 204032408
Matrix: ( soil / water ) Water	Lab Sample ID: 20403240802	
Level: ( low / med )	Date Received: 03/24/04	
% Solids:		

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	С	Q	M	]
7429-90-5	Aluminum	62300		*,E	Р	1
7440-36-0	Antimony	7.3	В	N	P	1
7440-38-2	Arsenic	50.7		N,*	P	1
7440-39-3	Barium	499		*,E	Р	17
7440-41-7	Beryllium	4.9	В		Р	1
7440-43-9	Cadmium	5.0			þ	1
7440-70-2	Calcium	427000		*	Р	I
7440-47-3	Chromium	72.6		*,E	P	1
7440-48-4	Cobalt	59.7			P	1
7440-50-8	Copper	131		*	P	14
7439-89-6	Iron	124000		*,E	P	I
7439-92-1	Lead	122		*	P <sup>2</sup>	] =
7439-95-4	Magnesium	80300		*,E	P	13
7439-96-5	Manganese	5690		*	F	TI
7439-97-6	Mercury	0.1	В		VA	1
7440-02-0	Nickel	116		*,E	P	17
7440-09-7	Potassium	12200		<b>/</b> E	P	13
7782-49-2	Selenium	4.4	υ	N	P	R
7440-22-4	Silver	0.4	U		P	1
7440-23-5	Sodium	60200			P	7
7440-28-0	Thallium	2.6	U	<del></del>	P	1
7440-62-2	Vanadium	105		E	P	1
7440-66-6	Zinc	490		N,*	P	7.7
57-12-5	Cyanide	0.8	В	· - · · - · - ·	AS	1 -

Color Before:	DK.BROWN	Clarity Before:	CLOUDY	Texture:	
Color After:	LT.BROWN	Clarity After:	CLEAR	Artifacts:	
Comments:					

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#### EPA SAMPLE NO.

INORGANIC A	ANALYSIS	DATA	SHEET
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SKSW#1MS1009

Lab Name: GCAL	Contract:			
Lab Code: LA024 Case No.:	SAS No.:	SDG No.:	204032408	
Matrix: ( soil / water ) Water	Lab Sample ID: 20403240803	3		
Level: ( low / med )	Date Received: 03/24/04			
% Solids:		_		
Concentration Units (ug/L or mg/kg dry weight) :	ug/L			

CAS No.	Analyte	Concentration	С	Q	M	1
7429-90-5	Aluminum	82700		*,E	P	I
7440-36-0	Antimony	41.9	В	N	P	15
744()-38-2	Arsenic	111		N,*	Р	17
7440-39-3	Barium	2580		*,E	Р	ゴ
744()-41-7	Beryllium	56.9			P	1
744()-43-9	Cadmium	51.6		-	P	1 _
7440-70-2	Calcium	587000		*	Р	3
7440-47-3	Chromium	284		*,E	P	J
744()-48-4	Cobalt	545		7	P	1
7440-50-8	Copper	436		*	Р	13
7439-89-6	Iron	168000		*,E	P	3
7439-92-1	Lead	183		*	P	ブ
7439-95-4	Magnesium	101000		*,E	P	1 て
7439-96-5	Manganese	8350		*	P	] ]
7439-97-6	Mercury	5.8			AV	1 -
7440-02-0	Nickel	619		*,E	Р	7
7440-09-7	Potassium	13900		∕,E	P	7
7782-49-2	Selenium	4.4	U	N	Р	R
7440-22-4	Silver	46.3			P	
7440-23-5	Sodium	58900			P	1
7440-28-0	Thallium	56.7		· · · · · · · · · · · · · · · · · · ·	P	1
7440-62-2	Vanadium	614		E	Р	1
7440-66-6	Zinc	1130		N,*	P	7
57-1:2-5	Cyanide	87.8			AS	1

Color Before:	DK.BROWN	Clarity Before:	CLOUDY	Texture:	
Color After:	LT.BROWN	Clarity After:	CLEAR	Artifacts:	<del></del>
Comments:					

EPA SAMPLE NO.

INORGANIC	ANALYSIS	DATA	SHEET

SKSW51DUP10	200	
SKSVVSILUE I	JU3	
50		
'3 0		

			50	<u></u>	
Lab Name: GCAL	Contract:				
Lab Code: LA024 Case No.:	SAS No.:		SDG No.:	204032408	
Matrix: ( soil / water ) Water	Lab Sample ID:	20403240805			
Level: ( low / med )	Date Received:	03/24/04			
% Solids:					
Concentration Units (ug/L or mg/kg dry weight): ug/L					

CAS No.	Analyte	Concentration	С	Q	M	1
7429-90-5	Aluminum	88100		*,E	P	7
7440-36-0	Antimony	6.7	В	N	P	アイフ
744()-38-2	Arsenic	67.0		N,*	P	3
7440-39-3	Barium	714		*,E	P	73
7440-41-7	Beryllium	6.7		-	P	1
744()-43-9	Cadmium	7.2			P	1
7440-70-2	Calcium	603000		*	P	7
744()-47-3	Chromium	102		*,E	P	3
7440-48-4	Cobalt	83.4			P	1
7440-50-8	Copper	174		*	P	
7439-89-6	Iron	173000		*,E	P	7
7439-92-1	Lead	169		*	P	7
7439-95-4	Magnesium	102000		*,E	P	1
7439-96-5	Manganese	7950		*	P	15
7439-97-6	Mercury	0.3		1	AV	1
7440-02-0	Nickel	162		*,E	P	7
7440-09-7	Potassium	17000		<b>∠</b> ',E	P	1 -
7782-49-2	Selenium	4.4	U	N	P	R
744()-22-4	Silver	0.4	U	- <del></del>	P	1
7440-23-5	Sodium	60100			P	1
7440-28-0	Thallium	2.6	U		P	
7440-62-2	Vanadium	145		E	P	13
7440-66-6	Zinc	679		N,*	P	75
57-12-5	Cyanide	1.1	В		AS	7 -

8) 29/05 min

Color Before:	DK.BROWN	Clarity Before:	CLOUDY	Texture:	
Color After:	LT.BROWN	Clarity After:	CLEAR	Artifacts:	
Comments:					

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#### EPA SAMPLE NO.

INORGANIC	ANALYSIS	DATA	SHEET

	_	
SKSW521009		
OI COTTO	,	
5 /		

Lab Name: GCAL	Contract:		<u> </u>
Lab Code: LA024 Case No.:	SAS No.:	SDG No.:	204032408
Matrix: ( soil / water ) Water	Lab Sample ID: 20403240806		
Level: ( low / med )	Date Received: 03/24/04		
% Solids:			

Concentration Units (ug/L or mg/kg dry weight) : ug/L

CAS No.	Analyte	Concentration	Ċ	Q	М	]
7429-90-5	Aluminum	9250		*,E	Р	7
7440-36-0	Antimony	3.7	U	N	P	JUJ
7440-38-2	Arsenic	11.1		N,*	P	
7440-39-3	Barium	112	В	*,E	P	7.7
7440-41-7	Beryllium	0.7	В		Р	7
7440-43-9	Cadmium	0.5	В	-	Р	7
7440-70-2	Calcium	153000		*	P	77
7440-47-3	Chromium	12.7		*,E	P	「て
7441)-48-4	Cobalt	7.8	В		P	7
7440-50-8	Copper	22.0	В	*	P	73
7439-89-6	Iron	17800		*,E	P	문
7439-92-1	Lead	17.3		. *	P	I
7439-95-4	Magnesium	38900		*,E	Р	7
7439-96-5	Manganese	685		*	P	1
7439-97-6	Mercury	0.1	U		AV	7 -
744()-02-0	Nickel	16.4	В	*,E	P	7-3
7440-09-7	Potassium	4470	В	/,E	Р	7
7782-49-2	Selenium	4.4	U	N	Р	1 R
7440-22-4	Silver	0.4	U		P	1 ' '
7440-23-5	Sodium	61800		<del></del>	Р	1
744(1-28-0	Thallium	2.6	U	<del></del>	P	7
744()-62-2	Vanadium	18.7	В	Е	P	1
744(1-66-6	Zinc	52.9		N,*	Р	7.
57-1.2-5	Cyanide	0.6	В	<del></del>	AS	7 -

Color Before:	LT.BROWN	Clarity Before:	CLEAR	Texture:	·
Color After:	LT.BROWN	Clarity After:	CLEAR	Artifacts:	
Comments:					

#### EPA SAMPLE NO.

#### INORGANIC ANALYSIS DATA SHEET

SKSW531009	
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	}	Sr
Lab Name: GCAL	Contract:	
Lab Code: LA024 Case No.:	SAS No.:	SDG No.: 204032408
Matrix: ( soil / water ) Water	Lab Sample ID: 20403240807	
Level: ( low / med )	Date Received: 03/24/04	
% Solids:		

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	C	Q	M	1
7429-90-5	Aluminum	26.8	В	*,E	Р	Z
7440-36-0	Antimony	3.7	U	N	P	CU
7440-38-2	Arsenic	2.9	U	N,*	Р	7
7440-39-3	Barium	41.7	В	*,E	P	T
7440-41-7	Beryllium	0.1	U		P	7
7440-43-9	Cadmium	0.2	U		P	7
7440-70-2	Calcium	108000		*	P	73
7440-47-3	Chromium	1.7	В	*,E	P	13
7440-48-4	Cobalt	0.5	В		Р	7
7440-50-8	Copper	3.2	В	*	P	13
7439-89-6	Iron	67.8	В	*,E	P	75
7439-92-1	Lead	1.5	υ	•	P	7
7439-95-4	Magnesium	31100		*.E	Р	75
7439-96-5	Manganese	3.2	В	*	P	7
7439-97-6	Мегсигу	0.1	U		AV	7
7440-02-0	Nickel	1.1	В	*,E	P	7:5
7440-09-7	Potassium	1900	В	,E	P	1
7782-49-2	Selenium	4.4	U	N	P	7 R
7440-22-4	Silver	0.6	В		P	7
7440-23-5	Sodium	61200			P	7
7440-28-0	Thallium	2.6	U		Р	1
7440-62-2	Vanadium	2.2	В	E	P	11
7440-66-6	Zinc	0.6	υ	N,*	P	1
57-12-5	Cyanide	0.5	U		AS	7

Color Before:	COLORLESS	Clarity Before:	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After:	CLEAR	Artifacts:	***************************************
Comments:					

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#### EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEE	ORGANIC	ANALYSIS	DATA	SHEE
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SKSI	MER 1	nna	(DISS)

Lab Name:	GCAL		Cont	ract:		-	
Lab Code:	LA024	Case No.:	SAS	No.:		SDG No.:	204032408
Matrix: ( soil	/ water )	Water	Lab Sa	mple ID:	20403240808		
Level: ( low /	med) _		Date R	eceived:	03/24/04		
% Solids:	,	_					
Concentration	on Units (u	ıg/L or mg/kg dry weight	; ug/L				
CAS No		Analyte	Concentration	С		Q	M

CAS No.	Analyte	Concentration	С	Q	М	
7429-90-5	Aluminum	25.8	U		Р	1
7440-36-0	Antimony	3.7	U		P	ļ
7440-38-2	Arsenic	2.9	Ü	N	Р	
7440-39-3	Barium	0.4	В		Р	l
7440-41-7	Beryllium	0.1	U		P	
7440-43-9	Cadmium	0.2	υ		Р	
7440-70-2	Calcium	60.8	В		Р	
7443-47-3	Chromium	0.8	U		Р	1
7440-48-4	Cobalt	0.4	U		Р	1
7440-50-8	Copper	4.2	В		Р	1
7439-89-6	Iron	14.1	U		P	1
7439-92-1	Lead	1.5	U		P	1
7439-95-4	Magnesium	36.7	U	· · · · · · · · · · · · · · · · · · ·	P	1
7439-96-5	Manganese	0.2	U	E	P	1
7439-97-6	Mercury	0.1	Ü		AV	1
7440-02-0	Nickel	0.7	U		Р	
7440-09-7	Potassium	42.1	U		Р	
7782-49-2	Selenium	4.4	U	N	Р	1 R
7440-22-4	Silver	0.4	U		P	
7440-23-5	Sodium	308	В		Р	1
7440-28-0	Thallium	2.6	Ü		P	1
7440-62-2	Vanadium	0.8	U	· · · · · · · · · · · · · · · · · · ·	P	1
7440-66-6	Zinc	5.6	В		Р	1

Color Before:	COLORLESS	Clarity Before:	CLEAR	Texture:	····
Color After:	COLORLESS	Clarity After:	CLEAR	Artifacts:	
Comments:					

## EPA SAMPLE NO. INORGANIC ANALYSIS DATA SHEET

SKSW5/1009 (DISS)	
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	0	
Lab Name: GCAL	Contract:	
Lab Code: LA024 Case No.:	SAS No.:	SDG No.: 204032408
Matrix: ( soil / water ) Water	Lab Sample ID: 20403240809	
Level: ( low / med )	Date Received: 03/24/04	
% Solids:		

CAS No.	Analyte	Concentration	С	Q	М	1
7429-90-5	Aluminum	25.8	U		P	1
744(1-36-0	Antimony	3.7	U		P	1
744(1-38-2	Arsenic	2.9	U	N	Р	1
744(-39-3	Barium	35.8	В		P	1
7440-41-7	Beryllium	0.1	U		P	1
744(1-43-9	Cadmium	0.2	U		Р	1
744()-70-2	Calcium	103000			P	1
7440-47-3	Chromium	1.6	В		P	1
744()-48-4	Cobalt	0.4	В		Р	1
7440-50-8	Copper	4.3	В		Р	1
7439-89-6	Iron	14.1	U		Р	1
7439-92-1	Lead	1.5	U		P	1
7439-95-4	Magnesium	29700		······································	Р	1
7439-96-5	Manganese	30.0		E	P	73
7439-97-6	Mercury	0.1	U		AV	1
744(1-02-0	Nickel	1.0	В		Р	1
744()-09-7	Potassium	2980	В		P	1
7782-49-2	Selenium	4.4	Ú	N	P	TR
7440-22-4	Silver	0.4	U	· ·	P	1
744()-23-5	Sodium	59200			P	1
744(-28-0	Thallium	2.6	U		Р	1
744()-62-2	Vanadium	2.2	В		P	1
7440-66-6	Zinc	0.6	U		Р	1

ug/L

Concentration Units (ug/L or mg/kg dry weight) :

Color Before:	COLORLESS	Clarity Before:	CLEAR	Texture:
Color After:	COLORLESS	Clarity After:	CLEAR	Artifacts:
Comments:				

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#### EPA SAMPLE NO.

INORGANIC ANALYSIS DATA	A SHEET
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SKSW51MS1009 (DISS)

Lab Name: G	CAL	Contra	act:		
Lab Code: LA	024 Case No.:	SAS N	SAS No.:		204032408
Matrix: ( soil / wa	ater) <u>Water</u>	Lab San	nple ID: _20403240810	)	
Level: ( low / me	ed)	Date Re	ceived: 03/24/04		
% Solids:				_	
Concentration (	Units (ug/L or mg/kg dry weigh	nt) : ug/L			
CAS No.	Analyte	Concentration	С	Q	M
7429-90-5	Aluminum	2190			P
7440-36-0	Antimony	124			Р
7440-38-2	Arsenic	51.2		N	P 3
7440-39-3	Barium	2140			Р
7440-41-7	Beryllium	55.8			P
7440-43-9	Cadmium	52.5			Р
7440-70-2	Calcium	105000			Р
7443-47-3	Chromium	212			Р
7440-48-4	Cobalt	515			Р
7440-50-8	Copper	291			Р
7439-89-6	Iron	1110			Р
7439-92-1	Lead	19:0			Р
7439-95-4	Magnesium	30300			P
7439-96-5	Manganese	562		Е	Р ""
7439-97-6	Мегсигу	5.8			AV
7440-02-0	Nickel	519			P
7440-09-7	Potassium	2790	В		Р
7782-49-2	Selenium	4.4	U	N	PR
7440-22-4	Silver	55.0			Р
7440-23-5	Sodium	59800			Ρ
7440-28-0	Thallium	50.2			Р
7440-62-2	Vanadium	537			Р
7440-66-6	Zinc	504			P

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Color Before:	COLORLESS	Clarity Before:	CLEAR	Texture:	***
Color After:	COLORLESS	Clarity After:	CLEAR	Artifacts:	
Comments:					

#### EPA SAMPLE NO.

INORGANIC	ANALYSIS	DATA	SHEET
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SKSW DUP1009 (DISS)

Lab Name:	GCAL		Contract:			
Lab Code:	LA024	Case No.:	SAS No.:		SDG No.:	204032408
Matrix: ( soil .	/water) Water		Lab Sample ID:	20403240811		
Level: ( low /	med )		Date Received:	03/24/04		
% Solids:				<del></del>		
Concentration	on Units (ug/L or r	ng/kg dry weight): ug/L				

CAS No.	Analyte	Concentration	С	Q	М	}
7429-90-5	Aluminum	25.8	U		P	1
7440-36-0	Antimony	3.7	U		P	1
7440-38-2	Arsenic	2.9	U	N	P	1
7440-39-3	Barium	33.0	В		Р	1
7440-41-7	Beryllium	0.1	U		Р	1
7440-43-9	Cadmium	0.2	U		P	1
7440-70-2	Calcium	101000			P	1
7440-47-3	Chromium	1.4	В		P	1
744(-48-4	Cobalt	0.4	В		P	1
744(-50-8	Copper	1.6	В		P	1
7439-89-6	Iron	14.1	U		Р	1
7439-92-1	Lead	1.5	U		Р	1
7439-95-4	Magnesium	29100			P	1
7439-96-5	Manganese	29.7		E	P	7 -
7439-97-6	Mercury	0.1	U		VA	1
7440-02-0	Nickel	1.0	В		Р	1
7440-09-7	Potassium	2670	В		Р	1
7782-49-2	Selenium	4.4	U	N	Р	1 R
7440-22-4	Silver	0.4	υ		Р	1
7440-23-5	Sodium	57300			Р	1
7440-28-0	Thallium	2.6	U		Р	1
7440-62-2	Vanadium	1.7	В		P	1
7440-66-6	Zinc	0.6	U		p	1

Color Before:	COLORLESS	Clarity Before:	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After:	CLEAR	Artifacts:	
Comments:					

### EPA SAMPLE NO.

#### INORGANIC ANALYSIS DATA SHEET

SKSW521009 (DISS)	
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Lab Name: GCAL	Contract:	<u> </u>
Lab Code: LA024 Case No.:	SAS No.:	SDG No.: 204032408
Matrix: ( soil / water ) Water	Lab Sample ID: 20403240812	
Level: ( low / med )	Date Received: 03/24/04	
% Solids:		

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	С	Q	M	
7429-90-5	Aluminum	25.8	U	<del></del>	P	1
7440-36-0	Antimony	3.7	U		Р	1
7440-38-2	Arsenic	2.9	U	N	P	1
7440-39-3	Barium	36.7	В		P	1
7440-41-7	Beryllium	0.1	U		P	1
7440-43-9	Cadmium	0.2	U		Р	1
7440-70-2	Calcium	106000			P	1
7440-47-3	Chromium	1.7	В		P	1
7440-48-4	Cobalt	0.4	U		P	1
7440-50-8	Copper	3.0	В		P	1
7439-89-6	Iron	14.1	U		P	1
7439-92-1	Lead	1.5	U		P	1
7439-95-4	Magnesium	31500			P	1
7439-96-5	Manganese	29.9		. É	P	7
7439-97-6	Mercury	0.1	U		AV	1 -
7440-02-0	Nickel	2.4	В		P	1
7440-09-7	Potassium	2160	В		Р	1
7782-49-2	Selenium	4.4	υ	N	P	R
7440-22-4	Silver	0.4	U		Р	1
7440-23-5	Sodium	60200			Р	1
7440-28-0	Thallium	2.6	U		Р	1
7440-62-2	Vanadium	2.4	В	<del></del>	P	1
7440-66-6	Zinc	3.4	В	<del></del>	P	1

Color Before:	COLORLESS	Clarity Before:	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After:	CLEAR	Artifacts:	
Comments:					

## INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SKSW551009 (DISS)
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Lab Name: GCAL Lab Code: LA024  Matrix: (soil / water) V Level: (low / med )		Contra	<del></del>		
Matrix: (soil / water) V		SAS N	lo ·		
	Vater			SDG No.:	204032408
Level: ( low / med )		Lab San	nple ID: 2040324	10813	
	<del>,</del>	Date Re	ceived: 03/24/04	4	
% Solids:				<del></del>	
Concentration Units (ug/	L or mg/kg dry weig	ht): ug/L			
CAS No.	Analyte	Concentration	С	Q	M
7429-90-5 Alumin	um	25.8	U		P
7440-36-0 Antimo	ny	3.7	U		P
7440-38-2 Arseni	<u> </u>	2.9	U	N	P
7440-39-3 Barium		40.7	В		Р
7440-41-7 Berylliu	ım	0.1	U		P
7440-43-9 Cadmir	nm	0.2	U		P
7440-70-2 Calciur	n	107000			Р
7440-47-3 Chrom	ium	1.3	В		P
7440-48-4 Cobalt		0.4	U		P
7440-50-8 Coppe	r	2.0	В		P
7439-89-6 Iron		14.1	U		P
7439-92-1 Lead		1.5	Ú		P
7439-95-4 Magne	sium	30700			P
7439-96-5 Manga	nese	1.5	В	E	<b>戸 ゴ</b>
7439-97-6 Mercui	у	0,1	U		VA
7440-02-0 Nickel		0.7	U		P
7440-09-7 Potass	ium	1900	В		P
7782-49-2 Selenii	ım	4.4	Ü	N	PR
744C-22-4 Silver		0.4	U		P
744C-23-5 Sodium	n	61400			Р
7440-28-0 Thalliu	m	2.6	U		ρ
7440-62-2 Vanad	ium	1.9	В		P
744C-66-6 Zinc		4.5	В		Р

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CLEAR

Clarity Before: CLEAR

Clarity After:

Color Before:

Color After:

Comments:

COLORLESS

COLORLESS

ILM04.1

Texture:

Artifacts:

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Lab Name: GCAL			Contract:			
Lab Code:	LA024	Case No.:	SAS No.:	SDG No.: 204032408		
Calibration S	Source:	106-61-2 CPI	Instrument ID: ICP5	ICAL ID: 2		
			Date Analyzed: 03/29/04	Time: 1215		

Analyte	True	Found	CAL %R	Units	Method	Туре
Antimony	120	133	111	ug/L	ILM04.1 - CLP Metals	Р
Arsenic	20.0	22.2	111	ug/L	ILM04.1 - CLP Metals	Р
Beryllium	10.0	9.60	96	ug/L	ILM04.1 - CLP Metals	P
Cadmium	10.0	9.70	97	ug/L	ILM04.1 - CLP Metals	Р
Chromium	20.0	19.8	99	ug/L	ILM04.1 - CLP Metals	Р
Cobalt	100	94.7	95	ug/L	ILM04.1 - CLP Metals	Р
Соррег	50.0	40.0	80	ug/L	ILM04.1 - CLP Metals	Р
Lead	6.00	5.10	84	ug/L	ILM04.1 - CLP Metals	Р
Manganese	30.0	27.6	92	ug/L	ILM04.1 - CLP Metals	P
Nickel	80.0	76.7	96	ug/L	ILM04.1 - CLP Metals	Р
Selenium	10.0	10.3	103	ug/L	ILM04.1 - CLP Metals	Р
Silver	20.0	19.9	100	ug/L	ILM04.1 - CLP Metals	Р
Thallium	20.0	22.4	112	ug/L	ILM04.1 - CLP Metals	P
Vanadium	100	96.4	96	ug/L	ILM04.1 - CLP Metals	Р
Zinc	40.0	35.5	89	ug/L	ILM04.1 - CLP Metals	Р

Lab Name:	GCAL		Contract:	
Lab Code:	LA024	Case No.:	SAS No.:	SDG No.: 204032408
Calibration	Source:	106-61-2 CPI	Instrument ID: ICP5	ICAL ID: 2
		·	Date Analyzed: 03/29/04	Time: 1506

Analyte	True	Found	CAL %R	Units	Method	Туре
Antimony	120	130	108	ug/L	ILM04.1 - CLP Metals	Р
Arsenic	20.0	23.2	116	ug/L	ILM04.1 - CLP Metals	Р
Beryllium	10.0	9.70	97	ug/L	ILM04.1 - CLP Metals	Р
Cadmium	10.0	9.60	96	ug/L	ILM04.1 - CLP Metals	Р
Chromium	20.0	19.9	100	ug/L	ILM04.1 - CLP Metals	Р
Cobalt	100	94.3	94	ug/L	ILM04.1 - CLP Metals	Р
Copper	50.0	38.5	77	ug/L	ILM04.1 - CLP Metals	Р
Lead	6.00	5.40	90	ug/L	ILM04.1 - CLP Metals	Р
Manganese	30.0	27.9	93	ug/L	ILM04.1 - CLP Metals	Р
Nickel	80.0	76.8	96	ug/L	ILM04.1 - CLP Metals	Р
Selenium	10.0	10.0	100	ug/L	ILM04.1 - CLP Metals	Р
Silver	20.0	21.0	105	ug/L	ILM04.1 - CLP Metals	Р
Thallium	20.0	19.6	98	ug/L	ILM04.1 - CLP Metals	Р
Vanadium	100	98.2	98	ug/L	ILM04.1 - CLP Metals	P
Zinc	40.0	35.0	87	ug/L	ILM04.1 - CLP Metals	Р

Lab Name:	GCAL		Contract:					
Lab Code:	LA024	Case No.:	SAS No.: SDG N	o.: 204032408				
Calibration s	Source:	106-61-2 CPI	Instrument ID: ICP5 ICA	AL ID: 2				
			Date Analyzed: 03/29/04 Tin	ne: 1605				

Analyte	True	Found	CAL %R	Units	Method	Type
Antimony	120	130	109	ug/L	ILM04.1 - CLP Metals	P
Arsenic	20.0	20.4	102	ug/L	ILM04.1 - CLP Metals	Р
Beryllium	10.0	9.60	96	ug/L	ILM04.1 - CLP Metals	Р
Cadmium	10.0	9.70	97	ug/L	ILM04.1 - CLP Metals	Р
Chromium	20.0	20.2	101	ug/L	ILM04.1 - CLP Metals	Р
Cobalt	100	95.4	95	ug/L	ILM04.1 - CLP Metals	P
Copper	50.0	39.1	78	ug/L	ILM04.1 - CLP Metals	Р
Lead	6.00	5.00	83	ug/L	ILM04.1 - CLP Metals	Р
Manganese	30.0	27.8	93	ug/L	ILM04.1 - CLP Metals	P
Nickel	80.0	77.6	97	ug/L	ILM04.1 - CLP Metals	P
Selenium	10.0	9.10	91	ug/L	ILM04.1 - CLP Metals	F
Silver	20.0	20.9	104	ug/L	ILM04.1 - CLP Metals	P
Thallium	20.0	20.4	102	ug/L	ILM04.1 - CLP Metals	Р
Vanadium	100	97.2	97	ug/L	ILM04.1 - CLP Metals	Р
Zinc	40.0	35.3	88	ug/L	ILM04.1 - CLP Metals	Р

Lab Name: GCAL			Contract:				
Lab Code:	LA024	Case No.:	SAS No.:	S	DG No.:	204032408	
Calibration S	ource:	106-58-5 EXAXOL	Instrument ID:	FIMS1	ICAL I	D: <u>1</u>	
			Date Analyzed:	03/31/04	Time:	1540	

Analyte	True	Found	CAL %R	Units	Method	Type
Mercury	0.200	0.200	106	ug/L	ILM04.1 CLP HG	AV

#### U.S. EPA - CLP 3 BLANKS

Lab Name:	GCAL		 Contract:	 	······································
Lab Code:	LA024	Case No.:	 SAS No.:	 SDG No.:	204032408

Preparation Blank Matrix: (soil / water) Water

Preparation Blank Concentration Units: (ug/L / mg/kg) ug/L

Preparation Blank Col	ncentration Onits. (C	19/L /	mg/kg)	ug/L			-				<del></del>
	Initial								Prepa	ı-	
	Calib.		Conti	nuing	Calibra	ition B	lank (ug	/L)	ration	ration	
Analyte	Blank		}						Blank		1
Analyte	(ug/L)	С	1	С	2	С	3	С		С	М
Aluminum	25.8	U	25.8	U	25.8	U	25.8	U	25.800	U	Р
Antimony	8.8	В	4.3	В	3.7	U	5.5	В	3.700	υ	Р
Arsenio	2.9	U	2.9	U	2.9	U	2.9	U	2.900	U	Р
Barium	0.3	υ	0.3	U	0.3	U	0.3	U	0.300	υ	P
Beryllium	0.1	U	0.1	υ	0.1	Ü	0.1	υ	0.100	υ	P
Cadmium	1.3	В	1.1	В	0.2	U	1.6	В	0.200	U	P
Calcium	7.5	U	7.5	U	7.5	U	7.5	υ	7.500	U	P
Chromium	0.8	U	0.8	U	0.8	U	0.8	U	1.199	В	P
Cobalt	0.4	U	0.4	U	0.4	U	0.5	В	0.822	В	Р
Copper	19.9	В	20.5	В	5.2	В	9.9	В	17.654	В	P
Iron	14.1	U	14.1	U	14.1	U	14.1	U	14.100	U	Р
Lead	1.5	В	1.5	U	1.5	U	1.5	U	1.500	U	Р
Magnesium	36.7	U	36.7	U	36.7	U	45.5	В	36.700	U	Р
Manganese	-1	В	-1.5	В	0.2	U	-1.7	В	-1.587	В	Р
Mercury	0.1	U	0.1	U	0.1	U	0.1	U	0.100	U	AV
Nickel	0.7	U	0.7	U	0.7	U	0.7	U	1.794	В	P
Potassium	42.1	U	42.1	U	42.1	U	42.1	U	42.100	U	P
Seleniura	4.4	U	4.4	U	4.4	U	4.4	Ú	4.400	U	P
Silver	0.4	U	0.4	В	0.7	В	0.8	В	1.381	В	Р
Sodium	45.4	U	45.4	U	45.4	U	45.4	U	45.400	Ū	P
Thallium	2.6	U	2.6	U	2.6	Ü	2.6	U	2.600	U	Р
Vanadium	0.8	U	0.8	Ü	0.8	U	0.8	U	0.800	U	P
Zinc	2.6	В	3.6	В	1.0	В	1.2	В	7.236	В	Р
Cyanide	0.5	U	0.5	U	0.5	U	0.5	ไบ	0.500	U	AS

### U.S. EPA - CLP 3 BLANKS

Lab Name:	GCAL		Contract:				
Lab Code:	LA024	Case No.:	SAS No.:	<del></del>	SDG No.:	204032408	
Preparation	Blank Matrix:	(soil / water) Water					

	Initial Calib.		Conti	nuing	Calibra	ation B	lank (u	g/L)	Prepa- ration		
Analyto	Blank		1						Blank		1
Analyte	(ug/L)	С	4	С	5	С	6	С		С	М
Aluminum		T	25.8	U			T	$\top$	25.800	U	P
Antimony		$\top$	5.2	В					3.700	U	P
Arsenic		$\top$	2.9	U					2.900	U	P
Barium			0.3	U					0.300	U	Р
Beryllium			0.1	U	1				0.100	U	Р
Cadmium			1.5	В	1		1		0.200	U	Р
Calcium			7.5	U			1		7.500	U	Р
Chromium			0.8	В					0.800	U	P
Cobalt		$\top$	0.4	U			1		0.475	В	Р
Copper		$\top$	13.5	В	Γ		1		5.096	В	P
Iron		$\top$	-16.1	В					14.100	U	P
Lead			1.5	U	1				1.500	U	P
Magnesium			53.8	В		7		7	36.700	U	P
Manganese		1	-1.7	В					-0.2201	В	Р
Mercury							1		0.100	U	ΑV
Nickel		$\top$	0.7	U					0.730	В	Р
Potassium		$\top$	42.1	U			1		42.100	U	P
Selenium		T	4.4	U					4.400	Ū	Р
Silver		1	1.0	В	1				0.400	U	P
Sodium		1	45.4	U	1		1		45.400	U	P
Thallium	1	1	2.6	U	1		T	1	2.600	υ	P
Vanadit m			0.8	U	1				0.800	U	P
Zinc		1	2.4	В			1		5.815	В	Р
Cyanide		$\top$	0.5	U	1		1			1-	AS

#### SPIKE SAMPLE RECOVERY

<b>EPA</b>		

	SPIKE	SAMPLE RECOVERY	SKSW51MS1009	
Lab Name: GCAL				
Lab Code: LA024	Case No.:	Contract:		_
Matrix: (soil / water) W	/ater	SAS No.:	SDG No.: 204032408	<del></del>
% Solids for Sample:		Level (low/med) :	AND BUT THE RESIDENCE OF THE PARTY OF THE PA	
Lab Sample ID: 204032	40802	Original Lab Sample ID:	20403240803	

Concentration Units (ug/L or mg/kg dry weight): ug/L

Analyte	Cont Lim %I	nit	Spiked Sample Result (SSR)	С	Sample Result (SR)	_ C _	Spike Added (SA)	% R	Q	М
Aluminum			82700		62300		2000	1020		Р
Antimony	75	125	41.9	В	7.3	В	100	35	N	Р
Arsenic	75	125	111		50.7		40.0	151	N	Р
Barium	75	125	2580		499		2000	104		Р
Beryllium	75	125	56.9		4.9	В	50.0	104		Р
Cadmium	75	125	51.6		5.0		50.0	93		Р
Chromium	75	125	284		72.6		200	106		Р
Cobalt	75	125	545		59.7		500	97		Р
Copper	75	125	436		131		250	122		Р
Iron			168000		124000	$\top$	1000	4410		Р
Lead			183		122	1	20.0	306		Р
Manganese			8350		5690		500	532		Р
Mercury	75	125	5.8		0.1	В	5.0	113		ΑV
Nickel	75	125	619		116		500	101		Р
Selenium	75	125	4.4	U	4.4	U	10.0	0	N	Р
Silver	75	125	46.3	1	0.4	U	50.0	93		Р
Thallium	75	125	56.7		2.6	U	50.0	113		Р
Vanadium	75	125	614	1	105		500	102		Р
Zinc	75	125	1130		490	T	500	128	N	Р
Cyanide	75	125	87.8		0.8	В	100	87	T	AS

Comments:

#### 5A

#### SPIKE SAMPLE RECOVERY

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EP	Aδ	MΛ	1PL	ᆮ	NC

Si	KSW	51M	S100	9 (DI	SS)	

Lab Name: GCAL	
Lab Code: LA024 Case No.:	Contract:
Matrix: ( soil / water ) Water	SAS No.: SDG No.: 204032408
% Solids for Sample:	Level (low/med) :
Lab Sample ID: 20403240809	Original Lab Sample ID: 20403240810

Concentration Units (ug/L or mg/kg dry weight): ug/L

Analyte	Cont Lin	nit	Spiked Sample Result (SSR)	С	Sample Result (SR)	С	Spike Added (SA)	% R	Q	М
Aluminum	75	125	2190		25.8	U	2000	110		Р
Antimony	75	125	124		3.7	U	100	124		Р
Arsenic	75	125	51.2		2.9	U	40.0	128	N	Р
Barium	75	125	2140		35.8	В	2000	105		Р
Beryllium	75	125	55.8		0.1	U	50.0	112		Р
Cadmium	75	125	52.5		0.2	U	50.0	105		P
Chromium	75	125	212		1.6	В	200	105		Р
Cobalt	75	125	515		0.4	В	500	103		P
Copper	75	125	291		4.3	В	250	115		Р
Iron	75	125	1110		14.1	U	1000	111		Р
Lead	75	125	19.0		1.5	U	20.0	95		Р
Manganese	75	125	562		30.0		500	.106		Р
Mercury	75	125	5.8		0.1	U	5.0	116		ΑV
Nickel	75	125	519		1.0	В	500	104		Р
Selenium	75	125	4.4	U	4.4	U	10.0	0	N	Р
Silver	75	125	55.0		0.4	U	50.0	110		P
Thalliurn	75	125	50.2		2.6	U	50.0	100		Р
Vanadium	75	125	537		2.2	В	500	107		Р
Zinc	75	125	504		0.6	U	500	101		Р

Comments:

EPA SAMPLE NO.

POST DIGEST SPIKE SAMPLE RECOVERY				SKS	SKSW511009PDS		
Lab Name:	GCAL						
Lab Code:	LA.024	Case No.:		Contract:	4 W		
Matrix: ( soil	/water) Water			SAS No.:	SDG No.:	204032408	
% Solids for	Sample:			Level: ( low / med )			

Lab Sample ID::

Concentration Units (ug/L or mg/kg dry weight): ug/L

20403240802

<u>155382</u>

Analyte	Control Limit %R	Spiked Sample Result (SSR)	С	Sample Result (SR)	С	Spike Added (SA)	% R	Q	М
Antimony		137	T	7.3	В	120	109		Р
Arsenic		77.0		50.7	1	20.0	131	<u> </u>	P
Beryllium		15.9	1	4.9	В	10.0	110		P
Cadmium		14.5	1	5.0	1	10.0	95		Р
Chromium		104	1	72.6		20.0	159	İ	Р
Cobalt		156	1	59.7	1	100	97	Ī	Р
Соррег		186	1-	131	1	50.0	109		Р
Lead		128	$\top$	122		6.0	100	Ī	Р
Manganese		5700		5690		30.0	40		Р
Nickel		195	1	116		80.0	98		P
Selenium		6.4	1	4.4	U	10.0	64		Р
Silver		17.6	1	0.4	U	20.0	88		Р
Thallium		25.8	$\top$	2.6	U	20.0	129		P
Vanadium		230	$\top$	105	$\top$	100	124		Р
Zinc		545	$\top$	490	1	40.0	139		Р

Comments:

% Solids for Sample:

Origina: Lab Sample ID:

5B

### POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

SKSW511009	(DISS)PDS

Lab Name: GCAL				
Lab Code: LA024	Case No.:	Contract:		
Matrix: (soil / water) Wat	er	SAS No.:	SDG No.: 204032408	_
% Solids for Sample:		Level: ( low / med )		
Original Lab Sample ID:	20403240809	Lab Sample ID::	<u>155384</u>	

Concentration Units (ug/L or mg/kg dry weight): ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	С	Sample Result (SR)	С	Spike Added (SA)	% R	Q	М
Antimony		145	T	3.7	U	120	121	T	Р
Arsenic		21.2	T	2.9	U	20.0	106		P
Beryllium	7	11.1	1	0.1	U	10.0	111	1	Р
Cadmium		10.1	T	0.2	JU	10.0	101		P
Chromium		22.8	T	1.6	В	20.0	106		P
Cobalt		102		0.4	В	100	101		Р
Copper		66.8	1	4.3	В	50.0	125		P
l_ead		2.8	В	1.5	U	6.0	47	T	P
Manganese		61.2	1	30.0	1	30.0	104	1	P
Nickel		82.4	7	1.0	B	80.0	102		P
Selenium		9.4	1	4.4	U	10.0	94		P
Silver		22.7	1	0.4	U	20.0	113		P
Thallium		13.0	$\top$	2.6	U	20.0	65	1	P
Vanadium		109		2.2	В	100	106		P
Zinc		40.8	7-	0.6	U	40.0	102	1	Р

Comments:

6

## DUPLICATES

EPA	~	MADE		11/
EPA	. 54	NVIPI	ᆫ	INC

SKSW51DUP1009	W51DUP1009
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Lab Name: GCAL		L
Lab Code: LA024	SDG No.:	204032408
Matrix: (soil / water ) Water		
% Solids for Sample:	Lab Sample ID	20403240805
% Solids for Duplicate:	Original Lab Sample	20403240802

## Concentration Units (ug/L or mg/kg dry weight) ug/L

Analyte	Cor Lir	ntrol nit	Sample (S)	С	Duplicate (D)	С	RPD	Q	М	
Alumir um	0 .	. 20	62300		88100		34	•	P	11
Antimony		.	7.3	В	6.7	В	9		Р	1
Arsenic	0 .	. 20	50.7		67.0		28		Р	ŀ
Barium	0 .	200	499		714		215.06	•	Р	V
Beryllium	0 .	. 5	4.9	В	6.7		1.7832		Р	1
Cadmium	0 .	. 5	5.0		7.2		2.1793	1	Р	1
Calcium	0 .	. 20	427000		603000		34	*	Р	V
Chromium	0 .	_ 20	72.6		102		34		Ρ	1./
Cobalt	0 .	. 50	59.7		83.4		23.689		Ρ	1
Copper	0 .	. 20	131		174		28	*	Р	١,
Iron	0 .	. 20	124000		173000		33	*	Р	1,
Lead	0 .	. 20	122		169		32	*	P	1-
Magnesium	0 .	. 20	80300		102000		24	*	P	ν
Manganese	0 .	_ 20	5690		7950		33	*	P	1/
Mercury	0 .	2	0.1	В	0.3		.19198	1	ΑV	1
Nickel	0 .	- 40	116		162		45.665	*	Р	1,
Potassium	0 .	5000	12200		17000		4784.0	1	Р	1
Selenium			4.4	Ü	4.4	Ū	0		P	1
Silver			0.4	U	0.4	U	0		P	1
Sodium	0 .	. 20	60200		60100		.2		Р	1
Thallium			2.6	U	2.6	U	0	1	Р	1
Vanadium	0 .	- 50	105		145	1	39.768		Р	1
Zinc	0 .	. 20	490		679		32	1	P	1
Cyanide			0.8	В	1.1	В	32	<b>†</b>	AS	1

#### U.S. EPA - CLP 6 DUPLICATES

#### EPA SAMPLE NO

SKSW51DUP1009 (DISS)

Lab Name: GCAL		
Lab Code: LA024	SDG No.:	204032408
Matrix: ( soil / water ) Water		
% Solids for Sample:	Lab Sample ID	20403240811
% Solids for Duplicate:	Original Lab Sample	20403240809

Concentration Units (ug/L or mg/kg dry weight) ug/L

	С	ontrol							
Analyte	(	Limit	Sample (S)	С	Duplicate (D)	c	RPD	Q	М
Aluminum		-	25.8	U	25.8	U	0		Р
Antimony		- 7	3.7	U	3.7	U	0		Р
Arsenic:		-	2.9	U	2.9	U	0		Р
Barium		-	35.8	В	33.0	В	8		Р
Beryllium		-	0.1	U	0.1	U	0		Р
Cadmium		-	0.2	Ü	0.2	U	0		Р
Calcium	0	- 20	103000		101000		2		Р
Chromium		-	1.6	В	1.4	В	13		Р
Cobalt		-	0.4	В	0.4	В	0		P
Copper		-	4.3	В	1.6	В	92		Р
Iron		-	14.1	U	14.1	U	0		Р
Lead		-	1.5	U	1.5	U	0		Р
Magnesium	0	- 20	29700		29100		2	1	P
Manganese	0	- 15	30.0		29.7		.33702		Р
Mercury		-	0.1	Ū	0.1	U	0		AV
Nickel		_	1.0	В	1.0	В	Ö		Р
Polassium		-	2980	В	2670	В	11		Р
Selenium		-	4.4	Ü	4.4	U	0		Р
Silver		-	0.4	Ū	0.4	U	0		Р
Sodium	0	- 20	59200		57300		3		Р
Thallium	1	-	2.6	U	2.6	U	0		Р
Vanadium	<u> </u>	-	2.2	В	1.7	В	26		Р
Zinc		-	0.6	Ü	0.6	U	0	Π	Р

#### LABORATORY CONTROL SAMPLE

Lab Name: GCAL		Contract:	Contract:						
Lab Code: LA024	Case No.:	SAS No.:	SDG No.:	204032408					
Solid LCS Source:		Lab Sample ID: <u>154787</u>							
Aqueous LCS Sour	ce: 310006 HIGH PURITY~323	003 HIGH							

	PA	Aqueous (ug/L)			Solid (mg/kg)				
Analyte	True	Found	% R	True	Found	С	% R		
Aluminum	2000	2150	107	· · · · · · · · · · · · · · · · · · ·			T		
Antimony	500	572	114						
Arsenic	2000	2190	109						
Barium	2000	2070	104						
Beryllium	50.0	54.7	109						
Cadmium	50.0	51.1	102						
Calcium	12500	12900	103						
Chromium	200	205	103						
Cobalt	500	504	101						
Соррег	250	280	112						
Iron	1000	1110	111						
Lead	500	523	105						
Magnesium	12500	12500	100						
Manganese	500	523	105						
Nickel	500	512	102						
Potassium	12500	12400	99						
Selenium	2000	2200	110						
Silver	50.0	54.0	108				1		
Sodium	12500	13200	106	1					
Thallium	2000	2100	105	1			1		
√anadium	500	526	105						
Zinc	500	502	100	11					

#### U.S. EPA - CLP 7 LABORATORY CONTROL SAMPLE

Lab Name: GCAL		Contract:					
Lab Code: LA024	Case No.:	SAS No.: SDG No	o.: 204032408				
Solic LCS Source:		Lab Sample ID: 154791					
Aqueous LCS Source:	310006 HIGH PURITY~323003 HIGH						

	Aq	ueous (ug/l	L)	Solid (mg/kg)			
Analyte	True	Found	% R	True	Found	С	% R
Alurninum	2000	2130	106				I
Antimony	500	578	116				
Arsenic	2000	2190	109				
Barium	2000	2070	103				
Beryllium	50.0	54.6	109				
Cadmium	50.0	51.2	102				
Calcium	12500	13000	104				1
Chromium	200	205	102				T
Cobalt	500	503	101				
Copper	250	279	112				
Iron	1000	1050	105				
Lead	500	520	104				
Magnesium	12500	12600	101			<del></del>	
Manganese	500	520	104				
Nickel	500	510	102				
Potassium	12500	12500	100				
Selenium	2000	2190	110				
Silver	50.0	53.8	108				
Sodium	12500	13400	107			7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Thallium	2000	2090	105				
Vanadium	500	527	105				
Zinc	500	495	99				

9

#### ICP SERIAL DILUTIONS

EPA	SAMP	LE	NC
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SKSW511009SD

ab	Name:	GCAL
_~~	TACALLEC.	

Lab Code:

LA024

Case No.

SDG No.:

204032408

Matrix: ( soil / water )

Water

Lab Sample ID

155381

Original Lab Sample ID 20403240802

Concentration Units:

ug/L

	Initial Sample		Serial Dilution					
Analyte	Result (I)	C	Result (S)	С	% Difference	Q	М	
Aluminum	62300		131000	1	110.3	E	P	11
Antimony	7.3	В	18.5	U	153.4		Р	1
Arsenic	50.7		69.6		37.3		Р	1
Barium	499		837	В	67.7	E	P	⁄
Beryllium	4.9	В	7.4	В	51.0		Р	1
Cadmium	5.0		4.4	В	12.0		Р	1
Calcium	427000		462000		8.2		Р	1
Chromium	72.6		135		86.0	E	Р	1
Cobalt	59.7		61.0	В	2.2		Р	1
Copper	131		143	$\top$	9.2		P	1.
Iron	124000		148000	1	19.4	E	P	γ
Lead	122		121	7	0.8		Р	1
Magnesium	80300		90500	7	12.7	E	P	J
Manganese	5690		6180	1	8.6		Р	1.
Nickel	116		132	В	13.8	E	P	γ
Potassium	12200		41600		241.0	E	Р	٦.,
Selenium	4.4	U	22.0	U			Р	1
Silver	0.4	U	2.0	U			Р	1
Sodium	60200		61500	7	2.2		Р	1
Thallium	2.6	U	13.0	U			Р	1
Vanadium	105		221	В	110.5	E	Р	1/
Zinc	490		489	1	0.2		Р	1

#### ICP SERIAL DILUTIONS

EPA SAMPLE NO.

SKSW511	009	(DISS)SD	

Lab Name:	GCAL
Lab Coce:	LA024

Case No.

SDG No.:

204032408

Matrix: ( soil / water ) Water

Lab Sample ID

155383

Original Lab Sample ID 20403240809

Concentration Units: ug/L

	· · · · · · · · · · · · · · · · · · ·				<del>,</del>		
Analyte	Initial Sample Result (I)	С	Serial Dilution Result (S)	С	% Difference	Q	м
Aluminum	25.8	U	129	U			Р
Antimony	3.7	U	18.5	U			Р
Arsenic	2.9	υ	14.5	U			Р
Barium	35.8	В	34.8	В	2.8		Р
Beryllium	0.1	υ	0.5	Ū			Р
Cadmium	0.2	U	1.0	U			Р
Calcium	103000		104000	1	1.0		Р
Chrornium	1.6	В	4.0	U	150.0	1	Р
Coba t	0.4	В	2.0	U		1	P
Copper	4.3	В	6.0	U	39.5		Р
Iron	14.1	U	70.5	U			Р
Lead	1.5	U	7.5	U		T	Р
Magnesium	29700		29700		0.0		Р
Manganese	30.0		23.4	В	22.0	Е	Р
Nickel	1.0	В	4.3	В	330.0	1	Р
Potassium	2980	В	2790	В	6.4		Р
Selenium	4.4	U	22.0	U			P
Silver	0.4	U	2.0	U			Р
Sodium	59200		57100		3.5		Р
Thallium	2.6	U	13.0	U		T	Р
Vanadium	2.2	В	4.0	U	81.8		Р
Zinc	0.6	U	3.0	U			Р

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#### INSTRUMENT DETECTION LIMITS

Lab Name:	GCAL				
Lab Code:	LA024	Case No.:	SAS No.:	SDG No.:	204032408
Instrument II	D: ICP5		Study Date: 04/30/03		

	Wavelength		CRDL	IDL	
Analyte	(nm)	Background	(ug/L)	(ug/L)	М
munimu·lA	308.210		200	25.8	P
Antimony	206.830	<u> </u>	60	3.7	Р
Arsenic	193.700		10	2.9	Р
Barium	233.520		200	.3	Р
Beryllium	313.100		5	.1	Ь
Cadmium	214.430		5	.2	Р
Calcium	315.880		5000	7.5	Р
Chromium	267.710		10	.8	Р
Cobalt	228.610		50	.4	Ь
Copper	324.750		25	1.2	Ъ
Iron	259.940		100	14.1	Р
Lead	220.350		3	1.5	Þ
Magnesium	279.080		5000	36.7	Р
Manganese	257.610		15	.2	Р
Nickel	231.600		40	.7	Р
Potassium	766.480		5000	42.1	Р
Selenium	196.030		5	4.4	р
Silver	328.060		10	.4	Р
Sodium	589.580	<u> </u>	5000	45.4	Þ
Thailium	190.800	1	10	2.6	Р
Vanadium	290.880		50	.8	Р
Zinc	213.860		20	.6	Р

#### U.S. EPA - CLP 14 ANALYSIS RUN LOG

Contract:

Case No.: Lab Code: LA024

SAS No.: \_\_\_\_\_ SDG No.: 204032408

Instrument ID Number: ICP5

Method Type: P

Start Date: 03/29/04

Lab Name: GCAL

End Date: 03/29/04

	Analyte Symbols	
<del></del>		

EPA Sample No.	D/F	Time	% R	Αi	Sb	As	Ва	Ве	Cd	Ca	Cr	Со	Cu	Fe	Pb	Mg	Mn	Hg	Ní	Κ	Se	Ag	Na	TI	٧	Zn	Cn
ICV	1	1155			Х	Х		Х	Χ	Χ	Х	X	Х	Х	Х	Χ	X		Х		Х	X		X	X	Х	
ICV2	1	1201		Х			Х													Х			Х				
ICB	1	1208		Х	X	X	Х	Χ	Χ	Х	Х	Х	Х	X	Х	Χ	X		Х	Х	Х	X	X	X	X	X	
CRDL	1	1215			X	X		Х	Χ		X	Х	Х		Х		X		Х		Х	Х		Х	Χ	Х	
ICSA	1	1222		X	Х	Х	X	X	X	Х	X	Х	X	Х	Х	X	X		X	Х	Х	X	Х	X	Х	X	
ICSAB	1	1228		Х	X	Х	Х	Х	Χ	Х	X	Х	Х	Х	Χ	X	Х		X	Х	Х	Х	Χ	X	Х	X	
CCV	1	1234		X		X	Х	Х	Х	Х	X	X	X	Х	Х	X	X		Х	Х	Х	X	Х	X	Х	X	
CCV2	1	1240			Х													_									
CCB	1	1248		Х	Х	Х	Х	Х	Х	Х	Х	X	Х	Х	Х	Х	Х		Х	Х	Х	X	X	Х	Χ	Х	
MB154786	1	1254		X	Χ	Х	X	Х	Χ	Χ	X	Х	Χ	Х	Χ	Χ	X		Χ	X	Х	X	Χ	X	Х	X	
SKSW511009	1	1301		Х	Х	X	X	Х	X	Χ	Х	Х	Х	Х	Х	Х	X		Х	Х	Х	X	Х	X	Х	X	
SKSW51DUP1009	1	1308		X	X	Х	X	X	X	X	X	X	X	X	X	X	Х		Х	X	X	X	X	X	X	X	
SKSW511009SD	5	1314		X	Х	Χ	Χ	X	X	Χ	Х	X	X	Х	Х	Χ	Х		Х	X	Х	X	X	X	Х	X	
SKSWEB1009	1	1320		Х	Х	X	X	Х	Х	Х	Х	Х	Х	Х	Х	X	X		X	Х	X	X	X	X	Х	X	
SKSW521009	1	1327		X	X	X	X	Х	X	Х	X	X	Х	X	Χ	Χ	X		Х	Х	X	X	Χ	Х	X	X	
SKSW531009	1	1333		Х	Х	X	X	Х	X	X	Х	Х	Χ	Χ	Х	X	X		Х	X	X	X	Х	X	Χ	X	
SKSW51MS1009	1	1340		Х	X	X	X	X	X	Х	X	X	Х	Х	Х	Х	X		X	X	X	X	Х	Х	Х	Х	
SKSW511009PDS	1	1346		X	Х	X	X	Х	X	Х	X	X	X	X	X	X	Х		X	X	X	X	X	Х	Х	X	
LCS154787	1	1352		X	X	X	X	Х	X	Х	X	Х	Х	X	X	X	Х		Х	X	X	X	X	Х	Х	X	$\Box$
CCV	1	1358		X		Х	X	Х	X	X	Х	Х	Х	Х	Χ	X	X		Х	X	X	X	Х	Х	Х	X	
CCV2	1	1405			X																						
ССВ	1	1412		Х	Х	X	X	Х	X	X	Х	Х	Χ	Х	X	Х	X		X	X	Х	Х	Х	Х	Χ	X	
MB154790	1	1419		X	X	X	X	X	X	X	Х	Х	X	X	Х	X	X		Х	X	X	X	Х	X	X	X	
SKSW511009 (DISS)	1	1425		X	Х	X	X	X	X	Х	X	Х	X	X	Х	X	X		Х	X	Х	X	X	Х	X	X	$\Box$
SKSW51DUP1009 (DISS)	1	1432		X	Х	Х	X	X	X	X	X	Х	X	X	X	X	Х		X	Х	X	Х	X	X	Х	X	
SKSW511009 (DISS)SD	5	1439		X	Х	X	X	X	X	Х	Х	Х	Х	Х	Х	Х	X		X	X	X	X	Х	X	Х	X	
SKSWEB1009 (DISS)	1	1446		Х	Х	Х	Х	Х	X	Х	Х	X	Х	Х	Х	Χ	Х		Х	Х	X	X	Χ	Х	X	X	

### U.S. EPA - CLP 14 ANALYSIS RUN LOG

Lab Name:	GCAL	Contract:
Lab Code:	LA024 Case No.:	SAS No.: SDG No.: 204032408
Instrument	ID Number: ICP5	Method Type: P
Start Date:	03/29/04	End Date: 03/29/04

				Analyte Symbols																							
EPA Sample No.	D/F	Time	% R	Αł	Sb	As	Ва	Ве	Cd	Ca	Cr	Со	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	TI	٧	Zn	Cn
SKSW521009 (DISS)	1	1453	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	Х	X	X	Х	
SKSW531009 (DISS)	1	1500		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	Х	Χ	X	X	Х	
CRDL	1	1506			X	X	Γ	X	X		Х	X	X		X	Г	Х		X		X	Х		Х	X	Х	
ICSA	1	1513		X	X	X	X	X	X	X	Х	X	X	X	X	X	X		X	X	X	Х	X	X	X	X	
ICSAB	1	1519		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ccv	1	1525		X		X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCV2	1	1532			X				Г																		
ССВ	1	1539		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	Х	X	X	X	Х	
SKSW51MS1009 (DISS)	1	1546		X	X	X	X	X	X	X	X	X	X	X	X	X	X		Х	X	X	Х	X	X	X	X	
SKSW511009 (DISS)PDS	1	1552		X	X	X	Х	X	X	X	X	X	Х	X	X	X	X		Х	Х	X	X	Χ	X	X	X	$\overline{}$
LCS154791	1	1559		X	X	X	Х	X	X	X	Х	X	X	X	X	X	Х		Х	X	Х	X	X	X	X	Х	
CRDL	1	1605			Х	X		Х	X		Х	X	X		Х		X		Х		X	Х		Х	X	Х	
ICSA	1	1612		X	X	X	X	Х	X	X	Х	X	X	X	X	X	X		Х	X	X	X	X	Χ	X	X	$\Box$
ICSAB	1	1618		X	X	X	Х	X	X	X	Х	X	Х	Х	X	Х	Х		Х	Х	X	X	X	X	X	X	
CCV	1	1624		Х		Х	Х	X	X	X	X	X	Х	X	X	X	Х		Χ	X	X	Х	X	X	X	Х	
CCV2	1	1630			Х																		_				$\Gamma$
CCB	1	1637		X	Х	Х	Х	Х	X	X	X	X	Х	X	X	X	Х		Χ	X	Х	Х	X	X	Х	Х	

#### DATA VALIDATION REPORT

**FOR** 

SKINNER LANDFILL SITE

**EARTH TECH: PROJECT NUMBER 54280** 

LABORATORY REPORT NUMBER 204030804

PROJECT MANAGER: Ron Rolker

Date: May 6, 2004

Revised Report Dated: September 23, 2005

**Data Validator: Mark Kromis** 

# APPENDIX C LIST OF ACRONYMS

BFB Bromofluorobenzene CC Continuing Calibration

CCV Continuing Calibration Verification
CCB Continuing Calibration Blanks
CLP Contract Laboratory Program
CRDL Contract Required Detection Limit
DFTPP Decafluorotriphenylphosphine

GC/MS Gas Chromatograph/Mass Spectrometer

IC Initial Calibration
ICB Initial Calibration Blank
IDL Instrument Detection Limit
ICP Inductively Coupled Plasma
ICS Interference Check Sample
ICV Initial Calibration Verification

ILM Inorganic Analysis Multi-Media Multi-Concentration

INDAM Individual A Mixture INDBM Individual B Mixture mg/L milligrams per liter

MS/MSD Matrix Spike/Matrix Spike Duplicate OLC Organic Analysis Low Concentration

OLM Organic Analysis Multi-Media Multi-Concentration

%D Percent Difference

% RSD Percent Relative Standard Deviation

PB Preparation Blanks
QC Quality Control
RF Response Factor

RPD Relative Percent Difference
RRF Relative Response Factor
SDG Sample Delivery Group
SOW Statement of Work
μg/L micrograms per liter

US EPA United States Environmental Protection Agency

VOC Volatile Organic Compounds VTSR Validated Time of Sample Receipt

# DATA VALIDATION SUMMARY – SAMPLE DELIVERY GROUP 204030804 INORGANICS

Validation of the inorganics data, as prepared by Gulf Coast Analytical Laboratories (GCAL) for the samples collected from the Skinner Landfill site in March 2004, was conducted by Earth Tech using the National Functional Guidelines for Inorganic Data Review, (US EPA, February, 1994), as appropriate. The results were reported by GCAL under Sample Delivery Group (SDG) 204030804.

GCAL #	Sample Description
204030804-01	SKSWD031009
204030804-02	SKSWD03D1009
204030804-03	SKSWD03MS1009
204030804-05	SKSWD03DUP1009
204030804-06	SKSWDEB1009
204030804-08	SKSWD031009 (DISS)
204030804-09	SKSWD03D1009 (DISS)
204030804-10	SKSWD03MS1009 (DISS)
204030804-11	SKSWD03DUP1009 (DISS)
204030804-12	SKSWDEB1009 (DISS)

#### INTRODUCTION

Analyses of metals were performed according to Contract Laboratory Program (CLP)-Inorganic Analysis Multi-media Multi-concentration ILM04.1 Statement of Work (SOW). Results of the sample analyses are reported by the laboratory as either qualified or unqualified. Unqualified results mean that the reported values maybe used without reservation. Various qualifier codes are used by the laboratory to denote specific information regarding the analytical results.

The data validation process is intended to evaluate the data on a technical basis. The data package also was subjected to an internal laboratory quality review prior to submission to Earth Tech for data validation.

During the validation process, laboratory-qualified and unqualified data are verified against all available supporting documentation. Based on this evaluation, qualifier codes may be added, deleted or modified by the data user. Final results are therefore, either qualified or unqualified. Validator-qualified results are annotated with the following codes in accordance with the Functional Guidelines:

- U The constituent was analyzed for, but was not detected above the level of the associated analytical reporting limit. The associated value is either the sample quantitation limit or the sample detection limit.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

-

- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Details of the inorganics data validation findings and conclusions are provided in the following sections of this report:

- 1. Holding Times
- 2. Calibration
  - A. Initial Calibration (IC)
  - B. Continuing Calibration (CC)
- 3. Blanks

(Mindian)

- 4. Inductively Coupled Plasma (ICP) Interference Check Sample
- 5. Laboratory Control Sample (LCS)
- 6. Duplicate Analysis
- 7. Spike Sample Analysis
- 8. ICP Serial Dilution
- 9. System Performance
- 10. Documentation
- 11. Overall Assessment

#### 1. HOLDING TIMES

All samples for inorganics analyses were analyzed within the 180-day holding time for preserved aqueous samples. Mercury analyses were conducted within the 28-day holding time for aqueous samples undergoing CLP protocol. Cyanide analyses were conducted within the 14-day holding time. The cooler temperature upon receipt at the laboratory was within the recommended temperature of 4°C +/- 2°C.

#### 2. CALIBRATION

#### A. Initial Calibration

-

in a part

The percent recoveries for the Initial Calibration Verification (ICV) standard were within Quality Control (QC) limits for all constituents.

# B. Continuing Calibration

The percent recoveries for the Continuing Calibration Verification (CCV) standard were within QC limits for all constituents.

#### 3. BLANKS

The Initial Calibration Blank (ICB), Continuing Calibration Blanks (CCB) and Preparation Blanks (PB) were analyzed at the appropriate frequencies. No constituents were detected in the ICB, CCB, PB, Equipment blanks above the corresponding Contract Required Detection Limit (CRDL).

#### 4. ICP INTERFERENCE CHECK SAMPLE

Results for the ICP analysis of the Interference Check Sample (ICS) solution AB were within 20% of the true value.

#### 5. LABORATORY CONTROL SAMPLES

Recoveries were within the control limit (80-120%) for all constituents.

# 6. **DUPLICATE ANALYSIS**

The Relative Percent Difference (RPD) between the sample and duplicate results were within the acceptance criteria for all target compounds.

# 7. SPIKE SAMPLE ANALYSIS

The laboratory used sample SKSWD031009 for the matrix spike sample. The MS percent recoveries were within the acceptance criteria (75%-125%) with the exception of Selenium in the total (0%) and dissolved (50%) fractions. As per the National Functional Guidelines: if the percent recovery is greater than 30% and less than 74% qualify detected results for that analyte with "J" and non-detected results with "UJ". If the percent recovery is less than 30% qualify detected results for that analyte with "J" and non-detected results with "R".

#### 8. ICP SERIAL DILUTION

As noted in the National Functional Guidelines: If the analyte concentration is at least 50 times above the IDL, its serial dilution analysis must then agree within 10% of the original determination after corrected for dilution. The serial dilution is performed to determine whether any significant chemical or physical interference's exist due to matrix effects. The serial dilution percent differences were within the acceptance criteria for all target analytes with the exception of Aluminum and Zinc in the total fraction. As per the National Functional Guidelines, if the required 10% difference criterion is not met then qualify the associated results as estimated with "J".

#### 9. SYSTEM PERFORMANCE

The analytical system appears to have been working well at the time of these analyses, based on the evaluation of the raw data.

#### 10. DOCUMENTATION

The documentation appeared accurate and in order with the exception of Manganese associated with the dissolved fraction. GCAL qualified the Manganese results with an "E" to indicate that the serial dilution percent difference criteria had been exceeded. The initial concentration of Manganese was not greater than 50 times the IDL therefore the analyte did not need to be flagged. The data validator crossed the "E" qualifier out with a single line and initialed and dated the correction.

#### 11. OVERALL ASSESSMENT

The percent recoveries for Lead in the Contract Required Detection Limit (CRDL) standards were 101%, 78%, and 123%.

The percent recoveries for Copper in the Contract Required Detection Limit (CRDL) standards were 63.0, 62.9%, and 69.1%.

The percent recoveries for Selenium in the Contract Required Detection Limit (CRDL) standards were 62%, 64%, and 84%.

The percent recoveries for Zinc in the Contract Required Detection Limit (CRDL) standards were 76%, 75%, and 81%.

If the CRDL is greater than 120% then detected results greater than the IDL but less than two times the CRDL are qualified as estimated with "J". If the CRDL is below 80% then detected results are qualified as estimated with "J" and the non-detected results were qualified with "UJ".

The results are acceptable with the validator-added qualifiers.

# DATA VALIDATION SUMMARY – SAMPLE DELIVERY GROUP 204030804 SEMIVOLATILE ORGANICS

Validation of the Gas Chromatograph/Mass Spectrometer (GC/MS) semi-volatile organics data, as prepared by Gulf Coast Analytical Laboratories (GCAL) for the samples collected from the Skinner Landfill site in March 2004, was conducted by Earth Tech using the National Functional Guidelines for Organic Data Review, (US EPA, October, 1999) as appropriate. The results were reported by GCAL under SDG 204030804.

GCAL#	Sample Description
204030804-01	SKSWD031009
204030804-02	SKSWD03D1009
204030804-03	SKSWD03MS1009
204030804-04	SKSWD03MSD1009
204030804-06	SKSWDEB1009

#### INTRODUCTION

Analyses were performed according to CLP-Organic Analysis Multi-Media, Multi-Concentration OLM04.2 SOW. Results of the sample analyses are reported by the laboratory as either qualified or unqualified. Unqualified results mean that the reported values may be used without reservation. Various data qualifier codes are used by the laboratory to denote specific information regarding the analytical results. The data validation process is intended to evaluate the data on a technical basis. The data package also was subjected to an internal laboratory quality review prior to submission to Earth Tech for data validation.

During the validation process, laboratory-qualified and unqualified data are verified against all available supporting documentation. Based on this evaluation, qualifier codes may be added, deleted or modified by the data user. Final results are therefore, either qualified or unqualified. Validator-qualified results are annotated with the following codes in accordance with the Functional Guidelines:

- U The constituent was analyzed for, but was not detected above the level of the associated analytical reporting limit. The associated value is either the sample quantitation limit or the sample detection limit.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Details of the semivolatile data validation findings and conclusions are provided in the following sections of this report:

- 1. Holding Times
- 2. GC/MS Tuning
- 3. Calibration
  - A. IC
  - B. CC
- 4. Blanks
- 5. System Monitoring Compound Recovery
- 6. MS/MSD
- 7. Internal Standards Performance
- 8. Compound Identification
- 9. Constituent Quantitation and Reported Detection Limits
- 10. System Performance
- 11. Documentation
- 12. Overall Assessment

#### 1. HOLDING TIMES

All samples were initially extracted within the seven-day technical holding time and the five-day VTSR method holding time. The cooler temperature upon receipt at the laboratory was within the recommended temperature of 4°C +/- 2°C.

### 2. GC/MS TUNING

The samples were analyzed on a single GC/MS system, identified as MSSV2. One decafluorotriphenylphosphine (DFTPP) tune was run representing the shift in which the standards and samples were analyzed. The DFTPP tune is acceptable.

#### 3. CALIBRATION

#### A. Initial Calibration

One IC dated 3/19/04 was analyzed in support of the semivolatile sample analyses. Documentation of the IC was present in the data package, and the Relative Response Factor (RRF), as well as percent % RSD values were accurately reported for all target compounds. The criteria employed for technical data review purposes are different than those used in the method. The laboratory must meet a minimum RRF of 0.01; however, for data review purposes, a RRF criterion of "greater than or equal to 0.05" is applied to all semi-volatile compounds. The RRF's and the average RRF were within the acceptance criteria specified in the method for all reported analytes. The %RSD's were within the acceptance criteria specified in the method for all target analytes with the exception of Di-n-butylphthalate (32.0%), Di-n-octylphthalate (30.3%) and Diethylphthalate (41.8%). The lowest point of the calibration curve was dropped for Di-n-butylphthalate, Di-n-octylphthalate, and Diethylphthalate and the %RSD were recalculated. The recalculated %RSD were within the acceptance criteria of less than 30%. Di-n-butylphthalate, Di-n-octylphthalate, and Diethylphthalate were not detected in the associated samples therefore data qualification was not required.

# B. Continuing Calibration

One CC dated 3/19/04 was analyzed in support of the semivolatile sample analyses reported in the data submissions. The RRF's for the CC dated 3/19/04 were within the acceptance criteria. The percent difference (%D) between the average RRF's and the CC Response Factors for the CC dated 3/19/04 were within the acceptance criteria with the exception the %D for Naphthalene. As per the National Functional Guidelines, if the %D exceeds the acceptance criteria qualify detected results for that analyte with "J" and non-detected results for that analyte with "UJ".

#### 4. BLANKS

One laboratory semivolatile method blank and equipment bland were analyzed with this SDG. The results are summarized below.

#### Method Blank (0308SBLK)

There were not target analytes detected in method blank 0308SBLK.

# Equipment Blank (SKSWDEB1009)

There were not target analytes detected in method blank SKSWDEB1009 collected on 3/2/04.

#### 5. SYSTEM MONITORING COMPOUND RECOVERY

All reported semivolatile system monitoring compounds were recovered within acceptable control limits.

# 6. MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD)

Sample SKSWD031009 was submitted for MS/MSD analysis. The MS/MSD percent recoveries were within the acceptance criteria with the exception of the 4-Nitorphenol. The %RPD between the MS/MSD were within the acceptance criteria. As per the National Functional Guidelines, no action is taken on MS/MSD data alone.

# 7. INTERNAL STANDARDS PERFORMANCE

Internal standard areas and retention times were within acceptable limits for the reported semivolatile sample analyses.

#### 8. COMPOUND IDENTIFICATION

All reported semivolatile constituents were correctly identified with supporting chromatograms present in the data package.

# 9. CONSTITUENT QUANTITATION AND REPORTED DETECTION LIMITS

Constituent quantitations were correctly calculated and reported for semivolatile constituents.

#### 10. SYSTEM PERFORMANCE

The analytical system appears to have been working well at the time of these analyses, based on the evaluation of the raw data submitted for review.

#### 11. DOCUMENTATION

The documentation appeared accurate and in order with the exception of the following: GCAL inadvertently left the Date Extracted off of the CLP Form 1's therefore the data validator inserted the Date Extracted on the CLP Form 1's.

#### 12. OVERALL ASSESSMENT

The results are acceptable with the validator-added qualifiers.

# DATA VALIDATION SUMMARY – SAMPLE DELIVERY GROUP 204030804 VOLATILE ORGANIC

Validation of the GC/MS volatile organics data, as prepared by Gulf Coast Analytical Laboratories (GCAL) for the samples collected from the Skinner Landfill site in March 2004, was conducted by Earth Tech using the National Functional Guidelines for Organic Data Review, (US EPA, October, 1999), as appropriate. The results were reported by GCAL under SDG 204030804.

GCAL#	Sample Description
204030804-01	SKSWD031009
204030804-02	SKSWD03D1009
204030804-03	SKSWD03MS1009
204030804-04	SKSWD03MSD1009
204030804-06	SKSWDEB1009
204030804-07	Trip Blank

#### INTRODUCTION

Analyses were performed according to CLP-Organic Analysis Low Concentration OLC02.0 SOW. Results of the sample analyses are reported by the laboratory as either qualified or unqualified. Unqualified results mean that the reported values may be used without reservation. Various qualifier codes are used by the laboratory to denote specific information regarding the analytical results. The data validation process is intended to evaluate the data on a technical basis. The data package also was subjected to an internal laboratory quality review prior to submission to Earth Tech for data validation.

During the validation process, laboratory-qualified and unqualified data are verified against all available supporting documentation. Based on this evaluation, qualifier codes may be added, deleted or modified by the data user. Final results are therefore, either qualified or unqualified. Validator-qualified results are annotated with the following codes in accordance with the Functional Guidelines:

- U The constituent was analyzed for, but was not detected above the level of the associated analytical reporting limit. The associated value is either the sample quantitation limit or the sample detection limit.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ The analyte was not detected above the reported sample quantitation limit.

However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

The volatiles data validation findings and conclusions are provided in the following sections of this report:

1. Holding Times

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- 2. GC/MS Tuning
- 3. Calibration
  - A. IC
  - B. CC
- 4. Blanks
- 5. System Monitoring Compound Recovery
- 6. MS/MSD
- 7. Laboratory Control Sample
- 8. Internal Standards Performance
- 9. Compound Identification
- 10. Constituent Quantitation and Reported Detection Limits
- 11. System Performance
- 12. Documentation
- 13. Overall Assessment

#### 1. HOLDING TIMES

All samples for Volatile Organic Compounds (VOC) analyses were analyzed within the 14-day technical holding time and the 10-day VTSR method holding time. The cooler temperature upon receipt at the laboratory was within the recommended temperature of 4°C +/- 2°C.

#### 2. GC/MS TUNING

All samples were analyzed on a single GC/MS system, identified as MSV2. One bromofluorobenzene (BFB) tune was run. The BFB tune is acceptable.

#### 3. CALIBRATION

#### A. Initial Calibration

One IC dated 3/13/04 was analyzed on Instrument MSV2 in support of the volatile sample analyses reported in the data submissions. Documentation of the IC standards was present in the data package, and RRF's as well as %RSD values were accurately reported. The criteria employed for technical data review purposes are different than those used in the method. The laboratory must meet a minimum RRF of 0.01; however, for data review purposes, a RRF criterion of "greater than or equal to 0.05" is applied to all volatile compounds. The %RSD's were within the acceptance criteria specified in the method for all target analytes. The RRF's and the average RRF for the IC dated 3/13/04 were within the acceptance criteria specified in the method for all target analytes with the exception of Acetone. As per the National Functional Guidelines, if any initial calibration RRF is less than 0.05, qualify positive results that have acceptable mass spectral identification with "J", using professional judgement, and non-detected analytes as unusable (R).

# B. Continuing Calibration

One CC dated 3/13/04 was analyzed on instrument MSV2 in support of the volatile sample analyses reported in the data submissions. The percent difference (%D) between the average RRF's and the CC RF's were within the acceptance criteria for all target analytes. The CC RRF's were within the acceptance criteria specified in the method for all target analytes with the exception of Acetone. The Acetone results were previously qualified under section 3A above.

# 4. BLANKS

One laboratory volatile method blank, storage blank, Trip Blank, and an Equipment Blank were analyzed with this SDG. The results are summarized below.

#### V2BLK01 (MB151783)

Methylene chloride, Chloroform and 1,3-Dichlorobenzene were detected at concentrations of 0.12 ppb, 0.38 ppb, and 0.034 ppb respectively in the method blank analyzed on 3/13/04.

# Storage Blank (VHBLK01)

Methylene chloride (0.15 ppb) and 1,4-Dichlorobenzene (0.21 ppb) were detected in the storage blank analyzed on 3/13/04.

# Trip Blank

Methylene chloride was detected at a concentration of 0.47 ppb in the Trip Blank submitted for the sampling event that occurred on 3/2/04. The Methylene chloride detected in the trip blank was mitigated by the presence of Methylene chloride in the associated method blank.

# Equipment Blank (SKSWDEB1009)

Ethylbenzene (0.022 ppb), Methylene chloride (0.4 ppb), Styrene (0.06 ppb) Toluene (0.43 ppb) and total Xylenes (0.11 ppb) were detected in the Equipment Blank collected on 3/2/04. The analytes Ethylbenzene, Styrene, Toluene, and total Xylenes were not detected in the associated samples therefore no data qualification was not required. The Methylene chloride detected in the equipment blank was mitigated by the presence of Methylene chloride in the associated method blank.

#### 5. SYSTEM MONITORING COMPOUND RECOVERY

All reported volatile system monitoring compounds were recovered within acceptable control limits for all samples.

#### 6. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Sample SKSWD031009 was submitted for MS/MSD analysis. The MS/MSD percent recoveries and %RPD between the MS/MSD were within the acceptance criteria.

#### 7. LABORATORY CONTROL SAMPLE

A LCS was analyzed in conjunction with this SDG. Recoveries were within the control limit for all constituents.

#### 8. INTERNAL STANDARDS PERFORMANCE

Internal Standard areas and retention times were within acceptable limits for the reported volatile sample analyses.

#### 9. COMPOUND IDENTIFICATION

All reported VOCs were correctly identified with supporting chromatograms present in the data package.

# 10. CONSTITUENT QUANTITATION AND REPORTED DETECTION LIMITS

Constituent quantitations were correctly calculated and reported for VOCs with the exception of Ethylbenzene. The Ethylbenzene standard and detected results were originally quantitated using the incorrect quantitation ion (GCAL used 106 instead of 91).

GCAL corrected the mistake and re-submitted the corrected pages that were affected in the laboratory report. The overall effect had no impact in the final result for Ethylbenzene.

#### 11. SYSTEM PERFORMANCE

The analytical system appears to have been working well at the time of these analyses, based on the evaluation of the raw data.

#### 12. DOCUMENTATION

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The documentation appeared accurate and in order with the exception of the following: GCAL inadvertently left the "B" qualifier off of the CLP Form 1's for Methylene chloride therefore the data validator inserted a "B" qualifier in the "Q" column of the CLP Form 1's. The "B" qualifier indicates that the analyte was detected in the associated method blank.

#### 13. OVERALL ASSESSMENT

The Acetone detected in sample SKSWD03D1009 could be do to low level contamination because Acetone is a common laboratory contaminant and the fact that Acetone was not detected in the associated duplicate sample. The results are acceptable with the validator-added qualifiers.

# DATA VALIDATION SUMMARY - SAMPLE DELIVERY GROUP 204030804 PESTICIDES

Validation of the Gas Chromatography (GC) pesticides data, as prepared by Gulf Coast Analytical Laboratories (GCAL) for the samples collected from the Skinner Landfill site in March 2004, was conducted by Earth Tech using the National Functional Guidelines for Organic Data Review, (US EPA, October, 1999), as appropriate. The results were reported by GCAL under SDG 204030804.

GCAL#	Sample Description
204030804-01	SKSWD031009
204030804-02	SKSWD03D1009
204030804-03	SKSWD03MS1009
204030804-04	SKSWD03MSD1009
204030804-06	SKSWDEB1009

#### INTRODUCTION

Analyses were performed according to CLP-Organic Analysis Multi-Media, Multi-Concentration OLM04.2 SOW. Results of the sample analyses are reported by the laboratory as either qualified or unqualified. Unqualified results mean that the reported values may be used without reservation. Various qualifier codes are used by the laboratory to denote specific information regarding the analytical results.

The data validation process is intended to evaluate the data on a technical basis. The data package also was subjected to an internal laboratory quality review prior to submission to Earth Tech for data validation.

During the validation process, laboratory-qualified and unqualified data are verified against all available supporting documentation. Based on this evaluation, qualifier codes may be added, deleted or modified by the data user. Final results are therefore, either qualified or unqualified. Validator-qualified results are annotated with the following codes in accordance with the Functional Guidelines:

- U The constituent was analyzed for, but was not detected above the level of the associated analytical reporting limit. The associated value is either the sample quantitation limit or the sample detection limit.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

Signal of

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Details of the pesticide data validation findings and conclusions are provided in the following sections of this report:

- 1. Holding Times
- 2. Gas Chromatograph/Electronic Capture Detector (GC/ECD) Instrument Performance Check
- 3. IC
- 4. Calibration Verification
- Blanks
- 6. Surrogate Spikes
- 7. Matrix Spike/Matrix Spike Duplicate (MS/MSD)
- 8. Pesticide Cleanup Checks
- 9. Target Compound Identification
- 10. Constituent Quantitation and Reported Detection Limits
- 11. Documentation
- 12. Overall Assessment

#### 1. HOLDING TIMES

"Turn"

All samples were extracted within the seven-day technical holding time and the five-day VTSR method holding time. The cooler temperature upon receipt at the laboratory was within the recommended temperature of  $4^{\circ}C$  +/-  $2^{\circ}C$ .

#### 2. GC/ECD INSTRUMENT PERFORMANCE CHECK

The Performance Evaluation Mixture (PEM) was analyzed at the correct frequency. Absolute retention times were within limits. The percent resolution between adjacent peaks was within QC limits for the Pesticide Analyte Resolution Check. The percent resolution between adjacent peaks is within QC limits for the Performance Evaluation Mixtures (PEM).

The percent breakdown for both 4,4-DDT and Endrin in each PEM was less than 20.0% for both GC columns. The combined percent breakdown for 4,4-DDT and Endrin in each PEM was less than 30.0% for both GC columns.

#### 3. INITIAL CALIBRATION

Individual standard mixtures A and B were analyzed at the correct frequencies and concentrations. The percent resolution criterion was met for Individual standard mixtures A and B.

The Percent Relative Standard Deviation (%RSD) of the calibration factors for each of the single component pesticides was less than 20%.

The multi-component target compounds were analyzed separately on both columns at a single concentration level. Retention times were determined from a minimum of three peaks.

#### 4. CALIBRATION VERIFICATION

Absolute retention times were within appropriate time retention windows

#### 5. BLANKS

One laboratory method blank and equipment blank were analyzed with this SDG. The results are summarized below.

#### Method Blank 151585

No constituents were detected above the laboratory-reporting limit. This blank corresponds to all samples extracted on 3/8/04.

### Equipment Blank SKSWDEB1009

No constituents were detected above the laboratory-reporting limit in the equipment blank collected on 3/2/04.

#### 6. SURROGATE SPIKES

Decachlorobiphenyl (DCB) and tetrachloro-m-xylene (TCX) surrogate spike recoveries were within the acceptance criteria for all samples except for TCX and DCB associated with sample SKSWD031009. There were no target compounds detected in sample SKSWD031009 therefore no action was taken.

# 7. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

There were no samples submitted for MS/MSD analysis during this sampling event.

# 8. PESTICIDE CLEANUP CHECKS

Recoveries of all pesticides and surrogates were within 80-120% for the lot of Florisil cartridges utilized for pesticide cleanup with the exception of Endrin (135%), 4,4'-DDT (139%) and Methoxychlor (121%). There were no target compounds detected in the associated samples therefore no action was taken.

# 9. TARGET COMPOUND IDENTIFICATION

All reported pesticide data were correctly identified with supporting chromatograms present in the data package.

# 10. CONSTITUENT QUANTITATION AND REPORTED DETECTION LIMITS

Constituent quantitations were correctly calculated and reported for pesticide constituents.

# 11. DOCUMENTATION

The documentation appeared accurate and in order.

#### 12. OVERALL ASSESSMENT

The results are acceptable with the validator-added qualifiers.

# REFERENCES

US EPA, 1994. National Functional Guidelines for Inorganic Data Review.

US EPA, 1999. National Functional Guidelines for Organic Data Review.



# **ANALYTICAL RESULTS**

#### **PERFORMED BY**

**GULF COAST ANALYTICAL LABORATORIES, INC.** 

**Report Date** 03/31/2004

GCAL Report 204030804

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**ADDENDUM** 

Deliver To Earth Tech 200 Vine Street Wilder, KY 41076 859-442-2300

Attn Pat Higgins

Customer Earth Tech

Project Skinner Landfill

#### CASE NARRATIVE

Client: Earth Tech Report: 204030804

Gulf Coast Analytical Laboratories received and analyzed the sample(s) listed on the sample cross-reference page of this report. Receipt of the sample(s) is documented by the attached chain of custody. This applies only to the sample(s) listed in this report. No sample integrity or quality control exceptions were identified unless noted below.

The ILM04.1 – CLP analysis is resubmitted as an addendum to include an expanded list of compounds at the request of the client. The Addendum includes an updated case narrative.

#### SEMI-VOLATILES MASS SPECTROMETRY

In the prep batch 270522, the MS/MSD exhibited sporadic recovery failures.

#### SEMI-VOLATILES GAS CHROMATOGRAPHY

In the Pesticide Florisil check analysis, the recoveries for Endrin, 4,4-DDT and Methoxychor were above recovery limits; however, these compounds were not detected in the associated samples.

In the Pesticide analysis for sample 20403080401 (SKSWD031009), the surrogate Tetrachloro-m-xylene and Decachlorobiphenyl are above the control limits.

# **METALS**

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In the ILM04.1 - CLP Metals analysis for prep batches 270882 and 270883, the MS recovery was outside the control limits for Selenium. The LCS recovery was within control limits. This indicates the analysis is in control and the sample is affected by matrix interference. A post-digestion spike was performed on the QC sample for these batches with a recovery of 88% and 99%.

Zinc is flagged as estimated for samples associated with prep batch 270882 due to the fact that the percent difference between the original sample result and the serial dilution result is greater than 10. A chemical or physical interference is suspected.

Aluminum and Manganese is flagged as estimated for samples associated with prep batch 270883 due to the fact that the percent difference between the original sample result and the serial dilution result is greater than 10. A chemical or physical interference is suspected.

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# EPA SAMPLE NO.

INORGANIC	ANALYSIS	DATA	SHEET
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Lab Name:         PROJ AAH GCAL         Contract:           Lab Code:         LA024         Case No.:         SAS No.:         SDG No.:           Matrix:         ( soil / water )         Water         Lab Sample ID:         20403080401           Level:         ( low / med )         Date Received:         03/06/04           % Solids:         Cor centration Units (ug/L or mg/kg dry weight):         ug/L           CAS No.         Analyte         Concentration         C         Q         M           7429-90-5         Aluminum         1800         E         P         T								
Matrix: (soil / water ) Water Lab Sample ID: 20403080401  Level: (low / med ) Date Received: 03/06/04  % Solids:  Cor centration Units (ug/L or mg/kg dry weight) : ug/L  CAS No. Analyte Concentration C Q M	Lab Name: Pl	ROJ AAH GCAL	Contr	act:		-		
Level: ( low / med ) Date Received: 03/06/04 % Solids:  Cor centration Units (ug/L or mg/kg dry weight) : ug/L  CAS No. Analyte Concentration C Q M	Lab Code: LA	.024 Case No.:	SAS	No.:		SDG No.:		
% Solids:  Cor centration Units (ug/L or mg/kg dry weight): ug/L  CAS No. Analyte Concentration C Q M	Matrix: ( soil / w	rater) Water	Lab Sar	nple ID:	20403080401			
Concentration Units (ug/L or mg/kg dry weight): ug/L  CAS No. Analyte Concentration C Q M	Level: ( low / me	ed)	Date Ro	eceived:	03/06/04			
CAS No. Analyte Concentration C Q M	% Solids:			•				
<u></u>	Corcentration	Units (ug/L or mg/kg dry wei	ght) : ug/L					
7429-90-5 Aluminum 1800 E P	CAS No.	Analyte	Concentration	С		Q	М	]
	7429-90-5	Aluminum	1800			E	Р	J

CAS No.	Analyte	Concentration	С	Q	M	1
7429-90-5	Aluminum	1800		E	Р	11
744C-36-0	Antimony	5.2	В		Р	1
7440-38-2	Arsenic	2.9	U		Р	1
7440-39-3	Barium	40.0	В		þ	1
7440-41-7	Beryllium	0.2	В		P	]
7440-43-9	Cadmium	0.2	Ü		Р	]
7440-70-2	Calcium	131000			Ь	1
7440-47-3	Chromium	1.4	В		Р	7
7440-48-4	Cobalt	1,5	В		P	1
7440-50-8	Copper	11.0	В		Ρ	1
7439-89-6	Iron	2200			P	1
7439-92-1	Lead	1.5	U		Р	7
7439-95-4	Magnesium	31600			Р	1
7439-96-5	Manganese	87.5			P	7
7439-97-6	Mercury	0.1	Û		AV	1
7440-02-0	Nickel	2.5	В		Р	1
7440-09-7	Potassium	4170	В		P	1
778:2-49-2	Selenium	4.4	Ü	N	Р	R
7440-22-4	Silver	0.4	Ü		Р	1
7440-23-5	Sodium	12600			P	1
7440-28-0	Thallium	2.6	U		P	7
7440-62-2	Vanadium	2.2	В		P	1
7440-66-6	Zinc	14.6	В	E	Р	J
57-12-5	Cyanide	0.8	В		AS	٦ `

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Color Before:	COLORLESS	Clarity Before:	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After:	CLEAR	Artifacts:	
Comments:					

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# EPA SAMPLE NO.

INORGANIC	<b>ANALYSIS</b>	DATA	SHEET
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SKSWD03D1009

Lab Name: P	ROJ AAH GCAL	Con	tract:			
Lab Code: LA	024 Case No.:	SAS	No.:	SDG N	lo.:	·····
Matrix: (soil / water ) Water Lab Sample ID: 20403080402				080402		
Level: ( low / me	ed )		Received: 03/06			
% Solids:		Date	veceived. 00/00			
Concentration	Units (ug/L or mg/kg dry weigh	t): ug/L				
CAS No.	Analyte	Concentration	С	Q	М	
7429-90-5	Aluminum	1750		E	Р	J
7440-36-0	Antimony	3.7	U		Р	
7440-38-2	Arsenic	5.3	В		Р	
7440-39-3	Barium	39.1	В		Р	
7440-41-7	Beryllium	0.2	В	*****	Р	
7440-43-9	Cadmium	0.2	U		Р	
7440-70-2	Calcium	124000		_	Р	li
744C-47-3	Chromium	1.3	В		Р	
744C-48-4	Cobalt	1.2	В		Р	
744C-50-8	Copper	4.5	В		þ	I
7439-89-6	Iron	2220			Р	
7439-92-1	Lead	1.5	U		Р	
7439-95-4	Magnesium	30200			Р	
7439-96-5	Manganese	90.9		· · · · · · · · · · · · · · · · · · ·	Р	
7439-97-6	Mercury	0.1	U		AV	
7440-02-0	Nickel	2.8	В	<del>,</del>	Р	
7440-09-7	Potassium	3960	В		Р	
7782-49-2	Selenium	4.4	Ü	N	Р	R
744(-22-4	Silver	0.4	U	· · · · · · · · · · · · · · · · · · ·	Р	•
7440-23-5	Sodium	12200			Р	
7440-28-0	Thallium	2.6	Ü		р	
7440-62-2	Vanadium	2.2	В		Þ	
7440-66-6	Zinc	7.2	В	Ē	P	Ţ
57-12-5	Cyanide	2.5	В		AS	
						9/23/0;- msh
Color Before:	COLORLESS	Clarity Before:	CLEAR	Textu	re:	Mary
Color After:	COLORLESS	Clarity After:	CLEAR	Artifac	cts:	

Comments:

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#### INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.	
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SKSWD03MS1009	

Lab Name: P	ROJ AAH GCAL	Cont	ract:				
Lab Code: LA024 Case No.:			SAS No.:		SDG No.:		
Matrix: ( soil / w	rater) Water	Lab Sa	mple ID: 20403086	0403			
Level: ( low / me	ed )	Date R	eceived: 03/06/04				
% Solids:				<del></del>			
Corcentration	Units (ug/L or mg/kg dry weig	ht): ug/L					
CAS No.	Analyte	Concentration	С	Q	M		
7429-90-5	Aluminum	3820	<del></del>	E	P	T	
744C-36-0	Antimony	109			Р	7	
7440-38-2	Arsenic	48.3			Р		
7440-39-3	Barium	1980			Р		
7440-41-7	Beryllium	49.6			Р		
7440-43-9	Cadmium	48.0			Р		
7440-70-2	Calcium	125000			P		
7440-47-3	Chromium	197			Р		
7440-48-4	Cobalt	461			P		
7440-50-8	Copper	247			Р	T	
7439-89-6	Iron	3090			P		
7439-92-1	Lead	18.3			Р	T	
7439-95-4	Magnesium	30700			Р	-	
7439-96-5	Manganese	573			P		
7439-97-6	Mercury	4.9			AV		
7440-02-0	Nickel	464			Р		
7440-09-7	Potassium	4040	В		P		
7782-49-2	Selenium	4.4	U	N	Р	R	
7440-22-4	Silver	47.7			P	-	
7440-23-5	Sodium	12100			Р		
7440-28-0	Thallium	43.2	-	*	P		
7440-62-2	Vanadium	499			Р		
7440-66-6	Zinc	452		E	Р	I	
57-12-5	Cyanide	90.9			AS	-	
					9	123105 MIL	
Color Before:	COLORLESS	Clarity Before:	CLEAR	Textu	re:		
Color After:	COLORLESS	Clarity After:	CLEAR	Artifa	cts:		
Comments:							

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# EPA SAMPLE NO.

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Lab Name: P	ROJ AAH GCAL	Co	ntract:				
Lab Code: LA024 Case No.:		SA	SAS No.:		SDG No.:		
Matr x: ( soil / w	vater) Water	Lab S	Sample ID: 204030	080405			
Level: ( low / m	ed)		Received: 03/06/0				
% Solids:		54.5					
Concentration	Units (ug/L or mg/kg dry weig	ht) : ug/L					
CAS No.	Analyte	Concentration	C	Q	М	}	
7429-90-5	Aluminum	1940	1	E	Р	T	
7440-36-0	Antimony	3.7	Ü		p	1 ~	
7440-38-2	Arsenic	2.9	U		Р	1	
7440-39-3	Barium	40.8	В		Р	1	
744C-41-7	Beryllium	0.2	В		Р	1	
744C-43-9	Cadmium	0.2	U	7-7	Р		
7440-70-2	Calcium	127000			Р	1	
7440-47-3	Chromium	1.6	В		Р	1	
7440-48-4	Cobalt	1.4	В		Р	1	
7440-50-8	Copper	8.4	В		Р	I	
7439-89-6	Iron	2170	1		Р	1	
7439-92-1	Lead	1.5	U		Р	1	
7439-95-4	Magnesium	31000	-		P	1	
7439-96-5	Manganese	86.7	1		P	†	
7439-97-6	Mercury	0,1	<del>U U</del>	-	AV		
7440-02-0	Nickel	2.8	В		P		
7440-09-7	Potassium	4130	В			1	
7782-49-2	Selenium	4.4	U	N	P	R	
7440-22-4	Silver	0.4	U I		Р	1 ''	
744()-23-5	Sodium	12200			-	1	
744()-28-0	Thallium	2.6	<del>                                     </del>		P	1	
7440-62-2	Vanadium	2.4	В		- p	1	
7440-66-6	Zinc	12.5	В	E	P	7	
57-12-5	Cyanide	0.5	U		AS	<b>,</b> ~	
					9	1 23/05 min	
Color Before:	COLORLESS	Clarity Before:	CLEAR	Text	ure:		
Color After:	COLORLESS	Clarity After:	CLEAR	Artifa	acts:		
Comments:					-		

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# EPA SAMPLE NO.

INORGANIC	ANALYSIS	DATA	SHEET

SKSWDEB1009	

Lab Name: PROJ AAH GCAL	Contract:	
Lab Code: LA024 Case No.:	SAS No.:	SDG No.:
Matrix: ( soil / water ) Water	Lab Sample iD: _2040308040	06
Level: ( fow / med )	Date Received: 03/06/04	
% Solids:		

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	25.8	25.8 U E		P
7440-36-0	Antimony	3.7	U		P
7440-38-2	Arsenic	2.9	U		Р
7440-39-3	Barium	0.3	U		Р
7440-41-7	Beryllium	0.1	U		Р
7440-43-9	Cadmium	0.2	U		Р
7440-70-2	Calcium	27.1	В		P
7440-47-3	Chromium	0.8	U		Р
7440-48-4	Cobalt	0.4	U		Р
7440-5C-8	Copper	3.5	В		Р
7439-89-6	Iron	14.1	U		Р
7439-92-1	Lead	1.5	U		Р
7439-95-4	Magnesium	36.7	U		P
7439-96-5	Manganese	0.2	U		P
7439-97-6	Mercury	0.1	U		AV
7440-02-0	Nickel	0.7	U		Р
7440-09-7	Potassium	42.1	U		Р
7782-49-2	Selenium	4.4	U	N	P
7440-22-4	Silver	0.4	U		Р
7440-23-5	Sodium	85.3	В	· _ · · · · · · · · · · · · · · · · · ·	P
7440-28-0	Thallium	2.6	U	<del></del>	P
7440-62-2	Vanadium	0.8	U		P
7440-66-6	Zinc	3.7	В	E	Р
57-12-5	Cyanide	1.9	В	<del></del>	AS

Color Before:	COLORLESS	Clarity Before:	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After:	CLEAR	Artifacts:	
Comments:					

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# INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name:	PROJ AAH GC	AL	с	ontract:			
Lab Code:	LA024	Case No.:	S/	AS No.:		SDG No.:	
Matrix: ( soil	/water) Wate	<u>r</u>	Lab	Sample ID:	20403080408		
Level: ( low	/ med )		Dat	e Received:	03/06/04		
% Solids:	·						
Concentrat	ion Units (ug/L or	mg/kg dry weigh	t): ug/L				
CAS No	). <i>F</i>	Analyte	Concentration	n C		Q	М
7429-90-5	Aluminum		34.6	В			P
7440-36-0	Antimony		3.7	U			Р
7440-38-2	Arsenic		5.3	В			Р
	I_ ··		<del>                                     </del>		<del></del>		

CAS No.	Analyte	Concentration	С	Q	M	1
7429-90-5	Aluminum	34.6	В		Р	1
7440-36-0	Antimony	3.7	U		Р	7
7440-38-2	Arsenic	5.3	В		Р	1
7440-39-3	Barium	29.8	В		Р	1
7440-41-7	Beryllium	0.2	В		Р	1
7440-43-9	Cadmium	0.2	C		Р	1
7440-70-2	Calcium	125000			Р	1
7440-47-3	Chromium	0.8	C		Р	7
744()-48-4	Cobalt	0.4	U		Р	1
7440-50-8	Copper	4.6	В		Р	] J
7439-89-6	Iron	17.2	В		P	7 `
7439-92-1	Lead	1.5	U		Р	1
7439-95-4	Magnesium	30400			Р	
7439-96-5	Manganese	3.0	В	Æ	Р	7
7439-97-6	Mercury	0.1	U		AV	7
7440-02-0	Nickel	1.4	В		Р	7
7440-09-7	Potassium	3570	В		Р	7
7782-49-2	Selenium	4.4	U	N	Р	UI
7440-22-4	Silver	0.4	υ		Р	7
7440-23-5	Sodium	12200			Р	7
744()-28-0	Thallium	2.6	U		Р	
7440-62-2	Vanadium	0.8	U		Р	1
7440-66-6	Zinc	0.6	U		Р	UJ

9/13/25 min

Color Before:	COLORLESS	Clarity Before:	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After:	CLEAR	Artifacts:	
Comments:					

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# INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SKSWD03D1009 (DISS)
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Lab Name: PROJ AAH GCAL	Contract:	
Lab Code: LA024 Case No.:	SAS No.:	SDG No.:
Matr x: ( soil / water ) Water	Lab Sample ID: 20403080409	
Level: ( low / med )	Date Received: 03/06/04	
% Solids:	<del></del>	

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	С	Q	М	7
7429-90-5	Aluminum	25.8	U	·	Р	1
7440-36-0	Antimony	3.7	U		Р	7
7440-38-2	Arsenic	4.1	В		Р	1
7440-39-3	Barium	29.8	В		P	1
7440-41-7	Beryllium	0.1	В		Р	1
7440-43-9	Cadmium	0.2	U		Р	1
7440-70-2	Calcium	125000		<u> </u>	Р	1
7440-47-3	Chromium	0.8	U		Р	7
7441)-48-4	Cobalt	0.5	В		Р	1
7440-50-8	Copper	1.2	U		P	Ju
7439-89-6	Iron	27.7	В		Р	7
7439-92-1	Lead	1.5	U		P	7
7439-95-4	Magnesium	30500			Р	7
7439-96-5	Manganese	3.0	В	Į.	Р	1
7439-97-6	Mercury	0.1	U		AV	1
7440-02-0	Nickel	1.3	В		P	1
7440-09-7	Potassium	3560	В		Р	7
7782-49-2	Selenium	4.4	U	N	P	$\exists u$
7440-22-4	Silver	0.4	U		P	7
7440-23-5	Sodium	12500			P	7
7440-28-0	Thallium	2.6	U		Р	1
7440-62-2	Vanadium	0.8	υ		Р	7
7440-66-6	Zinc	0.6	U		P	7 4

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Color Before:	COLORLESS	Clarity Before:	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After:	CLEAR	Artifacts:	
Comments:					

# INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SKSWD03MS1009(DISS)
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Lab Name: PROJ AAH GCAL	Contract:	
Lab Code: LA024 Case No.:	SAS No.:	SDG No.:
Matrix: ( soil / water ) Water	Lab Sample ID: 20403080410	
Level: ( low i med )	Date Received: 03/06/04	
% Solids:	10-May - 9 page - 10-10-10-10-10-10-10-10-10-10-10-10-10-1	

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	2050		<del></del>	P
7440-36-0	Antimony	115			P
7440-38-2	Arsenic	48.7			Р
7440-39-3	Barium	2010			Р
7440-41-7	Beryllium	50.6			Р
7440-43-9	Cadmium	49.6			Р
7440-70-2	Calcium	125000			Р
7440-47-3	Chromium	201			P
7440-48-4	Cobalt	471	· · · · · · · · · · · · · · · · · · ·		P
7440-50-8	Copper	247			Р
7439-89-6	Iron	1020			Р
7439-92-1	Lead	16.9			P
7439-95-4	Magnesium	31000		_	P
7439-96-5	Manganese	500		Z	P
7439-97-6	Mercury	5.1			AV
7440-02-0	Nickel	475			Р
7440-09-7	Potassium	3590	В		P
7782-49-2	Selenium	5.0		N	P
7440-22-4	Silver	49.3			P
7440-23-5	Sodium	12400			P
7440-28-0	Thallium	42.3		<del></del>	P
7440-62-2	Vanadium	509			Р
7440-66-6	Zinc	444			P

9/23/05 min

Color Before:	COLORLESS	Clarity Before:	CLEAR	Texture:	***************************************
Color After:	COLORLESS	Clarity After:	CLEAR	Artifacts:	
Comments:					

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# INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

	INORGANIC ANALYSIS DATA SHEET	SKSWD03DUP1009(DISS)	}
Lab Name: PROJ AAH GCAL	Contract:		ل
Lab Code: LA024 Case No.	: SAS No.:	SDG No.:	_
Matrix: ( soil / water ) Water	Lab Sample ID: 20403080411		
Level: ( low / med )	Date Received: 03/06/04		
% Solids:			

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	С	Q	M	1
7429-90-5	Aluminum	38.3	В		P	1
7440-36-0	Antimony	3.7	U		Р	1
7440-38-2	Arsenic	2.9	U		Р	1
7440-39-3	Barium	29.4	В		P	1
7440-41-7	Beryllium	0.1	В		Р	1
7440-43-9	Cadmium	0.2	U		Р	1
7440-70-2	Calcium	118000			Р	1
7440-47-3	Chromium	0.8	U		P	1
7440-48-4	Cobalt	1.7	В		Р	1
7440-50-8	Copper	12.2	В		Р	T
7439-89-6	Iron	21.5	В		Р	1 `
7439-92-1	Lead	1.5	U		Р	7
7439-95-4	Magnesium	29100			Р	1
7439-96-5	Manganese	3.6	В	¥	Р	7
7439-97-6	Mercury	0.1	U		AV	7
7440-02-0	Nickel	3.7	В		Р	1
7440-09-7	Potassium	3310	В		P	7
7782-49-2	Selenium	4.4	U	N	Р	⊺ uʻ
7440-22-4	Silver	0.4	U		Р	1
744()-23-5	Sodium	11700			Р	1
7440-28-0	Thallium	2.6	U		Р	1
744()-62-2	Vanadium	0.8	U		P	1
7440-66-6	Zinc	6.0	В	· · · · · · · · · · · · · · · · · · ·	P	1 1

9/23/05

Color Before:	COLORLESS	Clarity Before:	CLEAR	Texture:	
Color After:	COLORLESS	Clarity After:	CLEAR	Artifacts:	
Comments:					

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### EPA SAMPLE NO.

# INORGANIC ANALYSIS DATA SHEET

SKSWDEB	1000/DICC	٠١
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Lab Name: P	ROJ AAH GCAL	Contra	act:			
Lab Code: LA024 Case No.:			ło.:	SDG No.:		
Matrix: ( soil / w	ater) Water	Lab San	nple ID: 204030	80412		
Level: ( low / me	ed )		eceived: 03/06/0			
% Solids:		Date Ne	.ceiveu	<del></del>		
// OOIIGS.						
Concentration	Units (ug/L or mg/kg dry weigh	nt): ug/L				
CAS No.	Analyte	Concentration	С	Q	M	]
7429-90-5	Aluminum	25.8	Ü		Р	
7440-36-0	Antimony	3.7	Ü		Р	
7440-38-2	Arsenic	2.9	Ū		Р	]
7440-39-3	Barium	0.3	U		Р	]
7440-41-7	Beryllium	0.1	U		Р	]
744C-43-9	Cadmium	0.2	Ü		Р	
7440-70-2	Calcium	71.9	В		Р	
7440-47-3	Chromium	0.8	U		Р	
7440-48-4	Cobalt	0.4	Ü		Р	
7440-50-8	Copper	1.2	Ū		Р	uı
7439-89-6	Iron	22.6	В		Р	]
7439-92-1	Lead	1.5	U	<del></del>	Р	
7439-95-4	Magnesium	36.7	U		Р	
7439-96-5	Manganese	0.6	В	P	Р	]
7439-97-6	Mercury	0.1	U		AV	
7440-02-0	Nickel	1.5	В		Р	1
7440-09-7	Potassium	42.1	U		Р	1
7782-49-2	Selenium	4.4	U	N	Р	Tut
7440-22-4	Silver	0.4	U		Р	
7440-23-5	Sodium	292	В		Р	1
7440-28-0	Thallium	2.6	U		Р	
7440-62-2	Vanadium	0.8	U		Р	
744()-66-6	Zinc	3.9	В		Р	] 丁
						9/23/05 Mill
Color Before:	COLORLESS	· -	CLEAR	Textur	,,	
Color After:	COLORLESS	Clarity After: C	CLEAR	Artifac	ts:	

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Comments:

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#### INITIAL AND CONTINUING CALIBRATION VERIFICATION

_ab Name:	GCAL		Contract:	
_ab Code:	LA024	Case No.:	SAS No.:	SDG No.: 204030804
Calibration :	Source:	106-61-2 CPI	Instrument ID: ICP5	ICAL ID: 2
			Date Analyzed: 03/18/04	Time: 1140

# CRDL STANDARD

Analyte	True	Found	CAL %R	Units	Method	Туре
Antimony	120	125	104	ug/L	ILM04.1 - CLP Metals	Р
Arsenic	20.0	23.2	116	ug/L	ILM04.1 - CLP Metals	Р
Beryllium	10.0	9.00	90	ug/L	ILM04.1 - CLP Metals	Р
Cadmium	10.0	9.30	93	ug/L	ILM04.1 - CLP Metals	Р
Chromium	20.0	17.4	87	ug/L	ILM04.1 - CLP Metals	Р
Coball	100	89.8	90	ug/L	ILM04.1 - CLP Metals	Р
Copper	50.0	31.5	(63)	ug/L	ILM04.1 - CLP Metals	Р
Lead	6.00	6.10	101	ug/L	ILM04.1 - CLP Metals	Р
Manganese	30.0	28.0	93	ug/L	ILM04.1 - CLP Metals	Р
Nickel	80.0	73.3	92	ug/L	ILM04.1 - CLP Metals	Р
Selenium	10.0	6.20	(62)	ug/L	ILM04.1 - CLP Metals	Р
Silver	20.0	18.5	92	ug/L	ILM04.1 - CLP Metals	Р
Thallium	20.0	20.1	100	ug/L	ILM04.1 - CLP Metals	Р
Vanadium	100	92.2	92	ug/L	ILM04.1 - CLP Metals	Р
Zinc	40.0	30.3	(76)	ug/L	ILM04.1 - CLP Metals	P

# INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name:	GCAL		Contract:			
Lab Ccde:	LA024	Case No.:	SAS No.:		SDG No.:	204030804
Calibration S	Source:	106-61-2 CPI	Instrument ID:	ICP5	ICAL II	D: 2
			Date Analyzed:	03/18/04	Time:	1445

# CRDL STANDARD

Analyte	True	Found	CAL %R	Units	Method	Туре
Antimony	120	127	106	ug/L	ILM04.1 - CLP Metals	Р
Arsenic	20.0	22.6	113	ug/L	ILM04.1 - CLP Metals	Р
Beryllium	10.0	8.90	89	ug/L	ILM04.1 - CLP Metals	Р
Cadmium	10.0	9.40	94	ug/L	ILM04.1 - CLP Metals	Р
Chromium	20.0	17.8	89	ug/L	ILM04.1 - CLP Metals	Р
Cobalt	100	89.8	90	ug/L	ILM04.1 - CLP Metals	Р
Copper	50.0	31.4	( <b>6</b> /8)	ug/L	ILM04.1 - CLP Metals	Р
Lead	6.00	4.70	(78'	ug/L	ILM04.1 - CLP Metals	P
Manganese	30.0	27.9	93	ug/L	ILM04.1 - CLP Metals	Р
Nickel	80.0	74.1	93	ug/L	ILM04.1 - CLP Metals	Р
Selenium	10.0	6.40	(64)	ug/L	ILM04.1 - CLP Metals	Р
Silver	20.0	17.5	87	ug/L	ILM04.1 - CLP Metals	Р
Thallium	20.0	19.7	99	ug/L	ILM04.1 - CLP Metals	Р
Vanadium	100	91.8	92	ug/L	ILM04.1 - CLP Metals	Р
Zinc	40.0	30.1	(ই্	ug/L	ILM04.1 - CLP Metals	Р

# INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name:	GCAL		Contract:	
Lab Code:	LA024	Case No.:	SAS No.:	SDG No.: 204030804
Calibration (	Source:	106-61-2 CPI	Instrument ID: ICP5	ICAL ID: 2
			Date Analyzed: 03/18/04	Time: 1537

# CRDL STANDARD

Analyte	True	Found	CAL %R	Units	Method	Туре
Antimony	120	130	108	ug/L	ILM04.1 - CLP Metals	P
Arsenic	20.0	22.5	113	ug/L	ILM04.1 - CLP Metals	P
Beryllium	10.0	9.30	93	ug/L	ILM04.1 - CLP Metals	Р
Cadmium	10.0	9.90	99	ug/L	ILM04.1 - CLP Metals	Р
Chromium	20.0	19.6	98	ug/L	ILM04.1 - CLP Metals	Р
Coball	100	94.9	95	ug/L	ILM04.1 - CLP Metals	Р
Copper	50.0	34.5	(69)	ug/L	ILM04.1 - CLP Metals	Р
Lead	6.00	7.40	(123	ug/L	ILM04.1 - CLP Metals	Р
Manganese	30.0	28.9	96	ug/L	ILM04.1 - CLP Metals	Р
Nickel	80.0	78.0	97	ug/L	ILM04.1 - CLP Metals	Р
Selenium	10.0	8.40	84	ug/L	ILM04.1 - CLP Metals	Р
Silver	20.0	19.0	95	ug/L	ILM04.1 - CLP Metals	Р
Thallium	20.0	23.9	120	ug/L	ILM04.1 - CLP Metals	P
Vanadium	100	96.7	97	ug/L	ILM04.1 - CLP Metals	P
Zinc	40.0	32.3	81	ug/L	ILM04.1 - CLP Metals	P

U.S. EPA - CLP 3 BLANKS

Lab Name:	PROJ AAH GCAL		Contract:	 	
Lab Code:	LA024	Case No.:	SAS No.:	 SDG No.:	

Preparation Blank Matrix: (soil / water) Water

Preparation Blank Concentration Units: (ug/L / mg/kg) ug/L

	<del></del>		1		_		<del>-</del>		1		$\top$
	Initial								Prepa	1-	
	Calib.		Contir	nuing	Calibrat	ion B	lank (ug	/L)	ration		1
Analyte	Blank						_		Blank		
Analyte	(ug/L)	С	1	С	2	С	3	С		С	М
Aluminum	25.8	U	25.8	U	25.8	U	25.8	U	25.800	U	P
Antimony	11.3	В	19.8	В	7.5	В	20.4	В	6.501	В	P
Arsenic	3.1	В	4.5	В	4.9	В	3.7	В	2.900	U	Р
Bariurn	0.4	В	0.3	В	0.3	Ú	0.3	U	0.300	U	Р
Beryllium	0.1	Ū	0.1	U	0.1	В	0.1	U	0.100	U	P
Cadmium	0.6	В	1.6	В	0.3	В	3.5	В	0.550	В	Р
Calcium	7.5	U	7.5	U	25.2	В	11.7	В	7.500	U	Р
Chromium	0.8	U	0.8	U	0.8	Ū	0.8	U	0.800	U	Р
Cobalt	0.4	U	0.4	U	0.4	Ū	0.7	В	0.449	В	P
Copper	14.0	В	21.9	В	10.7	В	15.8	В	9.969	В	Р
Iron	14.1	U	17.6	В	14.1	υ	26.8	В	14.000	U	Р
Lead	1.5	Ū	2.1	В	2.5	В	1.5	U	1.500	U	Р
Magnesium	36.7	U	36.7	U	36.7	U	36.7	Ū	36.700	U	Р
Manganese	0.4	В	0.3	В	0.4	В	0.3	В	0.772	В	Р
Mercury	-0.1	В	-0.1	В	-0.1	В	-0.1	В	0.100	Ū	AV
Nicke	0.7	U	1.2	В	0.8	В	2.2	В	0.931	В	P
Potassium	42.1	U	42.1	U	42.1	U	42.1	U	42.100	U	P
Selenium	4.4	U	4.4	Ü	4.4	U	4.4	U	-4.403	В	Р
Silver	0.5	В	0.4	U	-1.3	В	0.4	U	-0.835	В	P
Sodium	45.4	U	45.4	U	45.4	U	45.4	U	85.108	В	Р
Thallium	-3.6	В	2.6	υ	-2.8	В	2.6	U	-3.681	В	P
Vanadium	0.8	Ū	0.8	U	-1.1	В	-0.9	В	0.800	U	P
Zinc	7.1	В	8.9	В	7.3	В	10.3	В	7.264	В	P
Cyanide	0.500	U	0.500	U	0.500	U			0.500	U	AS

# U.S. EPA - CLP 3 BLANKS

Lab Name: PROJ AAH GCAL			Contract:		
Lab Code:	LA024	Case No.:	SAS No.:	SDG No.:	
Preparation	Blank Matrix: (soil /	water) Water		•	

	Initial	Initial						Prepa-		ļ	
	Calib.	Calib. Continuing Calibration Blank (ug/L)							ration		ł
Analyte	Blank							Blank		Ì	
	(ug/L)	С	4	С	5	С	6	С		С	М
Alumirum		1	25.8	Ū			Ţ		25.800	U	Р
Antimony			19.1	В					3.700	U	Р
Arsenic		7	2.9	U			1		2.990	В	Р
Barium			0.3	U					0.300	U	Р
Beryllium			0.1	U					0.100	U	Р
Cadmium			1.6	В					0.200	U	Р
Calcium			10.6	В					23.995	В	Р
Chromium			0.8	U			1		-1.275	В	Р
Coball			1.1	В	1		1		0.445	В	Р
Copper		$\top$	24.6	В					3.617	В	Р
Iron			35.9	В					14.000	U	Р
Lead		Τ	2.0	В					1.500	U	Р
Magnesium		1	36.7	U		_			36.700	U	P
Manganese		$\top$	0.2	В					0.332	В	P
Mercury		1			1				0.100	U	ΑV
Nickel			2.2	В					0.877	В	Р
Potassium			42.1	U					42.100	U	P
Selenium			4.4	U					4.400	U	P
Silver			0.4	U				$\neg \vdash$	-2.198	В	P
Sodium		$\top$	45.4	U		1			88.654	В	Р
Thallium		$\top$	-4.0	В			1		-2.923	В	Р
Vanadium		1	0.8	U		T I			-1.051	В	Р
Zinc		$\top$	9.8	В					5.114	В	Р
Cyanide		1				_			1	1	AS

Preparation Blank Concentration Units: (ug/L / mg/kg) ug/L

#### MS/MSD RECOVERY

Lab Name:	PROJ AAH GCAL		Contract:	
Lab Code:	LA024	Case No.:	SAS No.:	SDG No.:
Matrix Spike	- EPA Sample No:	SKSWD031009		

SAMPLE NO. : 20403080403

COMFOUND	UNITS	SPIKE ADDED	SAMPLE CONCENTRATION	MS CONCENTRATION	MS % REC	#	QC.	LIMITS
Aluminum	ug/L	2000	1800	3820	101	T	75	- 125
Antimony	ug/L	100	5.2	109	104	1.	75	- 125
Arsenic	ug/L	40	2.9	48.3	127 110	71.	75	- 125
Bariurn	ug/L	2000	40	1980	97		75	- 125
Beryllium	ug/L	50	.2	49.6	99	T	75	- 125
Cadmium	ug/L	50	.2	48	96		75	- 125
Chromium	ug/L	200	1.4	197	98		75	- 125
Cobalt	ug/L	500	1.5	461	92		75	- 125
Copper	ug/L	250	11	247	94		75	- 125
Iron	ug/L	1000	2200	3090	89		75	- 125
Lead	ug/L	20	1.5	18.3	92		75	- 125
Manganese	ug/L	500	87.5	573	97		75	- 125
Mercury	ug/L	5	.1	4.9	99		75	- 125
Nickel	ug/L	500	2.5	464	92		75	- 125
Selerium	ug/L	10	4.4	4.4	0	N	75	- 125
Silver	ug/L	50	.4	47.7	95		75	- 125
Thallium	ug/L	50	2.6	43.2	86		75	- 125
Vanadium	ug/L	500	2.2	499	99		75	- 125
Zinc	ug/L	500	14.6	452	88		75	- 125
Cyanide	ug/L	100	.8	90.9	90		75	- 125

glaglog

# Column to	be used to f	lag recovery an	d RPD value	s with an asterisk

RPD :	0	out of	(		outsic	le limit	ts
Spike	Recover	y:	1	out	of	20	outside limits

<sup>\*</sup> Values outside of QC limits

#### MS/MSD RECOVERY

Lab Narne:	PROJ AAH GCAL		Contract:	 	
Lab Code:	LA024	Case No.:	SAS No.:	SDG No.:	
Matrix Spike	- EPA Sample No:	SKSWD031009 (DISS)			

SAMPLE NO. : 20403080410 **SPIKE** SAMPLE MS MS % COMPOUND UNITS ADDED CONCENTRATION CONCENTRATION # QC. LIMITS REC 2050 2000 34.6 101 75 Aluminum ug/L 125 -Antimony ug/L 100 3.7 115 115 75 125 Arsenic ug/L 40 5.3 48.7 109 75 125 Barium ug/L 2000 29.8 2010 99 75 125 50.6 101 50 .2 125 Beryllium ug/L 75 ug/L 50 .2 49.6 99 75 125 Cadmium Chromium ug/L 200 .8 201 101 75 125 Cobalt ug/L 500 .4 471 94 75 125 250 4.6 247 97 Copper ug/L 75 125 ug/L 1000 17.2 1020 100 125 Iron 75 Lead ug/L 20 1.5 16.9 84 75 125 Manganese ug/L 500 3 500 99 75 125 Mercury 5 .1 101 ug/L 5.1 75 125 500 475 95 Nickel ug/L 1.4 75 125 10 4.4 50 Selenium ug/L 5 75 125 Silver 49.3 99 ug/L 50 .4 75 125 Thallium ug/L 50 2.6 42.3 85 75 125 ug/L 500 509 102 Vanadium .8 75 125

.6

444

89

# Column to be used to flag recovery and RPD values with an asteris * Values outside of QC limits						
RPD:	0	out of	0	outside limits		

Spike Recovery: \_\_\_1 out of \_\_ 19 outside limits

ug/L

500

Zinc

125

#### EPA SAMPLE NO.

#### POST DIGEST SPIKE SAMPLE RECOVERY

SKSWD031009PDS	

Lab Name: Pl	ROJ AAH GCAL			
Lab Code: LA	1024	Case No.:	Contract:	
Matrix: ( soil / w	vater) Water		SAS No.:	SDG No.:
% Solids for Sa	ample:		Level: ( low / med )	

Concentration Units (ug/L or mg/kg dry weight): ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	С	Sample Result (SR)	С	Spike Added (SA)	% R	Q	М
Aluminum		6730		1800	T	5000	99		Р
Antimony		475		5.2	В	500	94		Р
Arsenic		474	1	2.9	U	500	95		Р
Barium		492		40	В	500	90		Р
Beryllium		450	1	.2	В	500	90		Р
Cadmium		439	Т	.2	U	500	88		Р
Calcium		134000	1	131000	1	5000	59		Р
Chromium		452		1.4	В	500	90		Р
Cobalt		430		1.5	В	500	86		Р
Copper		453		11	В	500	88		Р
Iron		6590	1	2200	1	5000	88	1	Р
Lead		435	1-	1.5	U	500	87	1	Р
Magnesium		36000		31600	1	5000	88		Р
Manganese		533		87.5		500	89		Р
Nickel		428		2.5	В	500	85		Р
Potassium		13500		4170	В	10000	93		Р
Selenium		442		4.4	U	500	88		P
Silver		453		.4	U	500	91		Р
Sodium		31000	1	12600		20000	92		Р
Thallium		447		2.6	U	500	89		Р
Vanadium		460	$\top$	2.2	В	500	92		Р
Zinc		425	1	14.6	В	500	82		P

Comments:

# 5B

#### POST DIGEST SPIKE SAMPLE RECOVERY

EPA	SAMPLE NO.	
-· · ·	O, 1111 EE 110.	

SKSWD031009	(DISS)PDS	

Lab Name: _F	PROJ AAH GCAL		Ł	
Lab Code: L	A024	Case No.:	Contract:	
Matrix; ( soil /	water) Water		SAS No.:	SDG No.:
% Solids for S	Sample:		Level: ( low / med )	

Concentration Units (ug/L or mg/kg dry weight): ug/L

Analyt <del>e</del>	Control Limit %R	Spiked Sample Result (SSR)	С	Sample Result (SR)	С	Spike Added (SA)	% R	Q	М
Aluminum		5080	T	34.6	В	5000	101		Р
Antimony		511		3.7	U	500	102	1	Р
Arsenic		535	1	5.3	В	500	106		Р
Barium		536	1	29.8	В	500	101	1	Р
Beryllium		512	1	.2	В	500	102		Р
Cadmium		493	$\top$	.2	U	500	99	ĵ 📑	Р
Calcium		136000		125000	T-	5000	220		P
Chromium		507	1	.8	U	500	101		Р
Cobalt		483	1	.4	U	500	97	1	Р
Copper		511		4.6	В	500	101	1	Р
Iron		4990		17.2	В	5000	99		Р
Lead		489	$\top$	1.5	U	500	98		Р
Magnesium		37300	$\top$	30400	7	5000	136		P
Manganese		502	T	3	В	500	100		Р
Nickel		479	$\top$	1.4	В	500	96		Р
Po:assium		14100		3570	В	10000	105		Р
Selenium		497		4.4	Ū	500	99		Р
Silver		512	<b>T</b>	.4	U	500	102		P
Sodium		33900	$\top$	12200		20000	108	1	P
Thallium		496	1	2.6	Tu	500	99		P
Vanadium		515	<del>                                     </del>	.8	U	500	103	T	P
Zinc	<del></del>	458	<del> </del>	.6		500	92		P

Comments:

#### U.S. EPA - CLP 6 DUPLICATES

#### EPA SAMPLE NO

SKSWD03DUP1009(DISS)

Lab Name: PROJ A	AH GCAL	····		
Lab Code: LA024	Case No.:	Contract:		
Matrix: ( soil / water )	Water	SAS No.:	SDG No.:	
		Level: ( low / med )		
% Solids for Sample:		% Solids for Dupli	icate:	

Concentration Units (ug/L or mg/kg dry weight) ug/L

	Control						1	
Analyte	Limit	Sample (S)	С	Duplicate (D)	С	RPD	Q	М
Alumirum	- 1	34.6	В	38.3	В	10		Р
Antimony	-	3.7	U	3.7	Ū	0	1	Р
Arsenic	-	5.3	В	2.9	U	200		Р
Barium	-	29.8	В	29.4	В	1	T	Р
Beryllium	-	.2	В	.1	В	67		Р
Cadmium	-	.2	U	.2	U	0		Р
Calcium	0 _ 20	125000		118000		6		Р
Chromium	-	.8	U	.8	U	0		Р
Coball.	-	.4	U	1.7	В	200	$\top$	Р
Copper	-	4.6	В	12.2	В	90		P
Iron	-	17.2	В	21.5	В	22	1	P
Lead	-	1.5	U	1.5	U	0		Р
Magnesium	0 - 20	30400		29100		4		P
Manganese	-	3	В	3.6	В	18	]	Р
Mercury	-	.1	U	.1	U	0		ΑV
Nickel	-	1.4	В	3.7	В	90	$T^{-}$	P
Potassium	-	3570	В	3310	В	8		Р
Selenium	-	4.4	U	4.4	U	0		Р
Silver	-	.4	U	.4	U	0	1	Р
Sodium	0 - 5000	12200		11700	Ī	500	1	Р
Thallium	-	2.6	U	2.6	U	0		Р
Vanadium		.8	U	.8	U	0	T-	Р
Zinc	-	.6	U	6	В	200	T -	Р

#### 6 DUPLICATES

E.P.A		

Lab Name: PROJ AAH 0	GCAL		
Lab Code: LA024	Case No.:	Contract:	
Matrix: (soil / water) Wa	ater	SAS No.:	SDG No.:
		Level: ( low / med )	
% Solids for Sample:		% Solids for Duplicate:	

Concentration Units (ug/L or mg/kg dry weight) ug/L

	Control			7				
Analyte	↓ Limit	Sample (S)	С	Duplicate (D)	С	RPD	Q	M
Aluminum	0 - 20	1800		1940		7		Р
Antimony	-	5.2	В	3.7	U	200		Р
Arsenio	-	2.9	U	2.9	U	0		Р
Barium	-	40	В	40.8	В	2		Р
Beryllium	-	.2	В	.2	В	0		Р
Cadmium	-	.2	Ū	.2	U	0		Р
Calcium	0 - 20	131000		127000		3		Р
Chromium	-	1.4	В	1.6	В	13		Р
Coball	-	1.5	В	1.4	В	7		Р
Copper	-	11	В	8.4	В	27		P
Iron	0 - 20	2200		2170		1		P
Lead	_	1.5	U	1.5	U	0	Π	Р
Magnesium	0 - 20	31600		31000		2		Р
Manganese	0 - 20	87.5		86.7		.9		Р
Mercury	-	.1	U	.1	U	0		AV
Nickel	-	2.5	В	2.8	В	11		Р
Potassium	-	4170	В	4130	В	1		Р
Selenium	-	4.4	U	4.4	U	0		Р
Silver	-	.4	U	.4	U	0		P
Sodium	0 - 5000	12600		12200		400		P
Thallium	_	2.6	U	2.6	U	0		Р
Vanadium	-	2.2	В	2.4	В	9		Р
Zinc	-	14.6	В	12.5	В	15		P
Cyan de	-	.8	В	.5	U	200		AS

#### LABORATORY CONTROL SAMPLE

Lab Name:	PROJ AAH	GCAL	Contract:		
Lab Code:	LA024	Case No.:	SAS No.:	SDG No.:	
Solid LCS S	Source:				
Aqueous LC	S Source:	310006 HIGH PURITY~323	003 HIGH		

	Ac	ueous (ug/	L)	Solid (mg/kg)			
Analyte	True	Found	% R	True	Found	С	% R
Aluminum	2000	2130	107				Ī
Antimony	500	564	113				
Arsenic	2000	2070	103				
Barium	2000	2030	101			-	
Beryllium	50.0	52.0	104			•	
Cadmium	50.0	51.6	103				
Calcium	12500	13000	104				
Chromium	200	201	100				
Cobalt	500	493	99	T			
Copper	250	274	110				
Iron	1000	1060	106			-	
Lead	500	509	102				
Magnesium	12500	13000	104				
Mariganese	500	508	102				
Nickel	500	501	100				
Potassium	12500	12400	99				
Selenium	2000	2000	100				
Silver	50.0	50.4	101	1		<del></del> .	
Sodium	12500	12800	102	1			
Thallium	2000	2020	101				1
Vanadium	500	519	104	<b> </b>			
Zinc	500	469	94				<b>—</b>

#### U.S. EPA - CLP 7 LABORATORY CONTROL SAMPLE

Lab Name:	PROJ AAH G	CAL	Contract:		
Lab Code:	LA024	Case No.:	SAS No.:	SDG No.:	
Solid LCS S	Source:				
Aqueous LC	S Source:	310006 HIGH PURITY~32300	з HIGH		

	Ad	ueous (ug/	L)	Solid (mg/kg)			
Analyte	True	Found	% R	True	Found	С	% R
Aluminum	2000	2200	110				Ĭ
Antimony	500	587	117				
Arsenic	2000	2160	108				
Barium	2000	2100	105				
Beryllium	50.0	53.9	108				*
Cadmium	50.0	54.0	108				
Calcium	12500	13600	109				
Chromium	200	210	105				
Cobalt	500	511	102			· · · · · · · · · · · · · · · · · · ·	
Copper	250	288	115				
Iron	1000	1080	108				
Lead	500	530	106			-	
Magnesium	12500	13500	108				
Manganese	500	526	105				
Nickel	500	520	104				
Potassium	12500	13000	104				
Selenium	2000	2080	104				
Silver	50.0	54.3	109				
Sodium	12500	13500	108				
Tha lium	2000	2110	105				
Vanadium	500	538	108				
Zinc	500	491	98	-			

# ICP SERIAL DILUTIONS

Level: ( low / med )

<b>EPA</b>	SAMPLE N	ΙΟ.
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SKSWD031009SD	

Lab Name: PROJ AAH GCAL

Lab Code: LA024 Case No.

Contract:

Matrix: ( soil / water ) Water

SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_

Concentration Units:

ug/L

			<del></del>				
Analyte	Initial Sample Result (I)	С	Serial Dilution Result (S)	С	% Difference	Q	м
Aluminum	1800		2330		29.4	E	Р
Antimony	5.2	В	22.6	В	335		Р
Arsenic	2.9	υ	21.3	В			Р
Barium	40.0	В	41.9	В	4.8		Р
Beryllium	0.2	В	0.5	U	150		Р
Cadmium	0.2	U	1.0	Ü			Р
Calcium	131000		132000		.8		Р
Chromium	1.4	В	4.0	U	186		Р
Cobalt	1.5	В	2.0	U	33.3		Р
Copper	11.0	В	6.0	υ	45.5		Р
Iron	2200		2370	1	7.7		Р
Lead	1.5	U	7.5	U			Р
Magriesium	31600		31700	1	.3		Р
Manganese	87.5		91.7		4.8		Р
Nickel	2.5	В	3.6	В	44		Р
Potassium	4170	В	3990	В	4.3		Р
Selenium	4.4	U	22.0	U		<u> </u>	Р
Silver	0.4	U	2.0	U			Р
Sodium	12600		12100	В	4		Р
Thail um	2.6	U	13.0	U		1	Р
Vanadium	2.2	В	4.0	U	81.8		Р
Zinc	14.6	В	3.0	U	79.5	Е	Р

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## EPA SAMPLE NO.

ICP SERIAL D	ILŲ	н	ONS
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` '	SKSWD031	009 (DISS)	SD
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Lab Name:	PROJ AAH GCAL				
Lab Code:	LA024	Case No.	Contract:		
Matrix: ( soil	(water) Water		SAS No.:	 SDG No.:	

Level: ( low / med )

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	O	Serial Dilution Result (S)	С	% Difference	Q	М
Aluminum	34.6	В	148	В	328	<b></b>	Р
Antim ony	3.7	U	18.5	U		<b> </b>	Р
Arsenic	5.3	В	14.5	U	174		Р
Barium	29.8	В	28.5	В	4.4		Р
Beryllium	0.2	В	0.5	U	150		Р
Cadmium	0.2	υ	1.0	Ü			Р
Calcium	125000		126000		.8	T -	Р
Chromium	0.8	υ	4.0	U			Р
Cobalt	0.4	U	2.0	U		$\Box$	Р
Copper	4.6	В	6.0	U	30.4		Р
Iron	17.2	В	86.8	В	405		P
L.ead	1.5	U	7.5	U			Р
Magriesium	30400		30500	1	.3	7	Р
Manganese	3.0	В	7.2	В	140	F	Р
Nickel	1.4	В	3.5	U	150	7	Р
Potassium	3570	В	3290	В	7.8		Р
Selenium	4.4	U	22.0	U			Р
Silver	0.4	U	2.0	U			Р
Sodium	12200		12000	В	1.6	Γ	Р
Thallium	2.6	U	13.0	U			Р
Vanadium	0.8	U	4.0	U			Р
Zinc	0.6	U	3.0	U			Р
			<del></del>				

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#### INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name:	PROJ AAH GCAL			
Lab Code:	LA024	Case No.:	SAS No.:	SDG No.:
instrument i	D: ICP5		Study Date: 04/30/03	

•	Wavelength		CRDL	IDL	
Analyte	(nm)	Background	(ug/L)	(ug/L)	М
Aluminum	308.210		200	25.8	Р
Antimony	206.830		60	3.7	Р
Arsenic	193.700		10	2.9	P
Barium	233.520		200	.3	Р
Beryllium	313.100		5	.1	Р
Cadmium	214.430		5	.2	Р
Calcium	315.880		5000	7.5	Р
Chromium	267.710		10	.8	Р
Cobalt	228.610		50	.4	Р
Cooper	324.750		25	1.2	Р
Iron	259.940		100	14.1	Р
Lead	220.350		3	1.5	Р
Magnesium	279.080		5000	36.7	Р
Manganese	257.610		15	.2	Р
Nickel	231.600		40	.7	Р
Potassium	766.480		5000	42.1	Р
Selenium	196.030		5	4.4	Р
Silver	328.060		10	.4	P
Sodium	589.580		5000	45.4	Р
Thallium	190.800		10	2.6	Р
Vanadium	290.880		50	.8	Р
Zirıc	213.860		20	.6	Р

## ANALYSIS RUN LOG

Lab Name:	PROJ AAH	GCAL		Contract:						
Lab Code:	LA024	Case No.:	<del></del>	SAS No.:	s	DG No.:	<u></u>			
Instrument I	D Number:	ICP5		Method Type:	Р					
Start Date:	03/18/04			End Date: 03/1	18/04					

## Analyte Symbols

EPA Sample No.	D/F	Time	% R	ΑI	Sb	As	Ва	Ве	Cd	Ca	Cr	Со	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Ti	٧	Zn	Cn
ICV	1	1108			Х	Х		Х	Х	Х	X	X	Х	Х	X	Х	Х		Χ		Х	Х		Х	X	Х	
ICV2	1	1114		Х			Х					Г								Х			X				
ICB	1	1133		X	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	X	Х	Х		Х	Х	Х	X	Х	Х	Х	Х	
CRDL	1	1140			Х	Х		Х	Х		Х	Х	Х		Х		X		Х		Х	Х		X	X	X	
ICSA	1	1200		X	Х	Х	Х	Х	Х	Х	Х	X	Х	Х	X	Х	X		Х	X	Х	Х	X	Х	X	X	
ICSAB	1	1206		X	Х	Х	X	Х	Х	Х	Х	X	Х	Х	X	Х	X		Х	X	Х	X	Х	Х	X	Х	
CCV	1	1212		X		Х	Х	Х	Х	Х	Х	X	Х	X	X	Х	Х		Х	Х	Х	Х	Х	Х	Х	Х	
CCV2	1	1218			Х																						
ССВ	1	1225		X	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	X	Х	X		Х	Х	Х	Х	Х	Х	Х	Х	
MB153201	1	1232		X	Х	Х	Х	Х	Х	Х	Х	X	Х	Х	Х	Х	X		Х	Х	Х	X	Х	Х	X	Х	
SKSWD031009	1	1239		X	X	Х	Х	Х	Х	Х	Х	X	Х	Х	X	Х	Х		Х	Х	Х	Х	Х	Х	Х	X	
SKSWD03DUP1009	1	1245		X	Х	Х	Х	Х	Χ	X	Х	Х	Х	Х	Х	Х	X		Х	X	X	X	Х	Х	X	Х	
SKSWD031009SD	5	1252		Х	Х	Х	Х	X	Х	Х	Х	X	Х	X	X	Х	X		Х	Х	Х	X	Х	X	Х	X	
SKSWDEB1009	1	1259		X	X	Х	Х	Х	Х	X	Х	X	X	X	X	Х	X		Х	Х	Х	Х	Х	Х	Х	Х	
SKSWD03D1009	1	1306		X	Х	Χ	Х	Х	Х	X	Х	X	Х	Х	X	Х	Х		Χ	Х	Х	Χ	Х	X	X	Х	
SKSWD03MS1009	1	1312		X	Х	Χ	Х	Х	Χ	Х	Х	X	Х	X	X	Х	X		Х	Х	Х	Х	X	Х	X	Х	
SKSWD031009PDS	1	1318		X	Х	Х	X	Х	Х	Х	Х	X	Х	Х	Х	Х	X		Х	X	Х	X	Х	Х	X	Х	
LCS153202	1	1324		X	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	X	X	X		Х	Х	Х	Х	X	Х	X	Х	
CCV	1	1337		Х		Х	Х	Х	Χ	Х	Х	X	Х	Х	X	X	Х		Х	X	Х	Х	Χ	Х	X	X	
CCV2	1	1343			Х																						
ССВ	1	1350		Х	Χ	Х	X	Х	Х	Х	Х	X	Х	Х	X	X	Х		Х	X	Х	Х	Х	Х	X	X	
MB153203	1	1357		Х	X	Χ	X	Х	Х	Х	Х	Х	Х	Х	X	Х	X		Χ	Х	Х	Х	Х	X	Х	Х	
SKSWD031009 (DISS)	1	1404		Х	X	Χ	Х	Х	Х	Х	Х	X	Х	Х	X	Х	Х		X	X	Х	Х	Х	Х	X	Х	$\Box$
SKSWD03DUP1009(DISS)	1	1411		Х	Х	Х	Х	Х	X	Х	Х	Х	Х	Х	Х	Х	Х		Χ	Х	Х	Х	Х	X	X	X	
SKSWD031009 (DISS)SD	5	1418		Х	Х	Х	Х	Х	X	X	X	Х	Х	Х	Х	X	Х		Х	Х	Х	Х	Х	Х	X	Х	
SKSWDEB1009(DISS)	1	1425		Х	Х	Х	Х	Х	X	Х	Х	X	Х	Х	X	Х	Х		Х	Х	Х	Х	Х	Х	Х	Х	
SKSWD03D1009 (DISS)	1	1432		Х	Χ	Χ	Х	Х	Х	Х	X	X	Х	Х	Х	Х	Χ		Χ	Χ	Х	Х	Χ	Χ	Х	Х	

## 14 ANALYSIS RUN LOG

Lab Name:	PROJ AAH GCAL	Contract:						
Lab Code:	LA024 Case No.:	SAS No.: SDG No.:						
Instrument I	D Number: ICP5	Method Type: P						
Start Date:	03/18/04	End Date: 03/18/04						

Analyte Symbols	
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EPA Sample No.	D/F	Time	% R	ΑI	Sb	As	Ва	Ве	Cd	Ca	Cr	Со	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	ΤI	٧	Zn	Cn
SKSWD03MS1009(DISS)	1	1439		X	X	Х	X	X	X	Х	X	X	X	X	X	X	Х		X	X	Х	X	X	X	X	Х	
CRDL	1	1445			X	X		X	X		X	X	X		X		Х		Х		Х	Х		Х	X	Х	
ICSA	1	1452		X	X	Х	Х	Х	X	Х	X	X	X	X	X	X	X		Х	Х	Х	Х	Х	X	Х	Х	
ICSAB	1	1458		X	X	Х	Х	Х	X	X	X	Х	X	X	X	Х	X		Х	Х	X	Х	Х	Х	Х	Х	
CCV	1	1504		X		Х	X	X	X	Х	X	X	X	X	Х	X	X		Х	X	X	X	Х	Х	Х	Х	
CCV2	1	1510			X						Γ	П															
ССВ	1	1517		X	Х	Х	X	Х	Х	X	X	Х	X	X	X	Х	Х		X	Х	Х	Х	Х	Х	Х	Х	
SKSWD031009 (DISS)PDS	1	1524		X	X	Х	Х	Х	Х	Х	X	X	X	X	X	X	Х		Х	Х	Х	Х	X	Х	X	Х	
LCS153204	1	1531		X	Х	Х	Х	X	X	Х	X	X	X	X	X	Х	Х		Х	Х	Х	Х	Χ	Х	Х	Х	
CRDL	1	1537			Х	Х		X	X		Х	X	Х		X		Х		Х		_X	Х		Х	X	Х	
ICSA	1	1600		X	Х	Х	X	X	X	Х	X	X	X	X	X	Х	X		Х	Х	Х	X	Χ	Х	Х	X	
ICSAB	1	1606		X	Х	Х	Х	Х	Х	Х	X	X	X	X	X	Х	Х		Х	Х	Х	Х	X	Χ	Х	Х	
ccv	1	1612		X		Х	X	X	X	Х	X	X	X	X	X	X	X		Х	Х	X	Х	Х	Х	X	Х	
CCV2	1	1618			Х									Π													
ССВ	1	1625		X	Х	Х	Х	Х	Х	Х	X	X	X	X	X	Х	X		X	Х	X	X	Х	Х	Х	X	